

THE BRITISH JOURNAL OF DERMATOLOGY

JULY 1954

TRICHOPHYTON TONSURANS RINGWORM: A CONTRIBUTION TO THE EPIDEMIOLOGY AND RARE CLINICAL MANIFESTATIONS.

FREDERICK REISS, M.D.

From the Department of Dermatology and Syphilology, N.Y. University Post-Graduate Medical School (Dr. Marion B. Sulzberger, Chairman), and the Service of Dermatology and Syphilology of Bellevue Hospital (Dr. Frank C. Combes, Chief of Service).

THE increase of ringworm infection caused by the *T. tonsurans* group has been recently emphasized by several authors (Howell, Wilson and Caro, 1952; J. L. Pipkin, 1953; Lucille K. Georg, 1952). In addition, Kligman and Constant (1951) described a family epidemic involving both parents and three children. These reports are of great interest and importance because the incidence of infections caused by *T. tonsurans* has been considered rare on the Eastern Seaboard of U.S.A., particularly in New York City.

Reports of cases of *T. tonsurans* infection in New York City include those of Lewis and Hopper (1948), who reported 13 cases over a period of 7 years. Montgomery, Heinlein and Karpluk (1948) observed 0.2% among 2857 cases of ringworm of the scalp during a 7-year observation period. Benham (1952) saw 0.8% in a series of 677 patients seen from June 1949 to June 1950.

The present report deals with the incidence of tinea capitis and corporis caused by *T. tonsurans* at Bellevue Hospital, and also with an endemic focus which involved seven children at the Mount Loretto Home, Long Island. During the six-year period of July 1947–July 1953, 4027 mycological examinations were performed and fungi were found in 891 cases, with positive cultures in 654 patients. Table I lists the various organisms and the number of cases caused by each fungus, as well as the sex incidence. During this period *T. tonsurans* was isolated in 44 cases. Table II lists the incidence and localization of the infection. Except for a 43-year-old male with onychomycosis of the toe-nails, the rest of the patients were children around or below the age of puberty. Fifteen of the patients were Puerto Rican, the remainder were native born.

TABLE I.—*Incidence of Fungous Infections at Bellevue Hospital (July 1947–July 1953).*

Species.	Number of patients.	Males.	Females.
<i>M. audouini</i>	318	268	50
<i>M. canis</i>	112	59	53
<i>M. fulvum</i>	1	1	—
<i>T. tonsurans</i>	44	15	29
<i>T. violaceum</i>	7	6	1
<i>T. faviforme discoides</i>	1	1	—
<i>Achorion schoenleinii</i>	1	1	—
<i>T. gypsum</i>	68	45	23
<i>T. purpureum</i>	90	76	14
<i>Epidermophyton inguinale</i>	5	4	1
<i>Candida albicans</i>	17	4	13
Total	664	480	184

TABLE II.—*Incidence of Fungous Infections caused by T. tonsurans.*

Year.	Number of patients.	Male.	Female.	Involvement of							
				Scalp.		Skin.		Skin/Scalp.		Nails.	
				M.	F.	M.	F.	M.	F.	M.	F.
1947	3	3	0	2	0	0	0	0	0	1	0
1948	3	2	1	2	1	0	0	0	0	0	0
1949	2	1	1	1	0	0	1	0	0	0	0
1950	3	2	1	2	1	0	0	0	0	0	0
1951	23	3	20	0	14	3	3	0	3	0	0
1952	3	1	2	1	1	0	1	0	0	0	0
1953	7	3	4	2	2	1	2	0	0	0	0
Total	44	15	29	10	19	4	7	0	3	1	0

CLINICAL MANIFESTATIONS.

Tinea Capitis

Lesions of the scalp show certain characteristic features which merit a short description. The process is characterized by scaly, mild, inflammatory, indistinct, irregular bizarre-shaped patches varying in size and extent. Alopecia is not as pronounced as in tinea capitis caused by microsporons or achorions. At times only a few broken hairs are seen with dark stumps in the follicles. Usually, only a small area is involved, and the disease spreads slowly and inconspicuously to other parts of the scalp. Kerion formation occurs occasionally. Since *T. tonsurans* infected hairs do not fluoresce the diagnosis is frequently missed. In addition, diagnostic difficulties may arise because scalp manifestations may at times resemble lupus erythematosus, seborrhoea capitis or psoriasis. In several children of Mount Loretto Home, tiny seborrhoea-like itching, scaly lesions were present which clinically did not suggest a fungous infection, but the fact that *T. tonsurans* was isolated in a number of other patients of this institution made us suspect a possible fungous aetiology.

It should be borne in mind that seborrhoea-like scaliness represents the epidermal phase of the infection and that invasion of the hair comes afterwards. Although this is the common route of all fungi which infest the hair, every species does not produce lesions of this nature.

Glabrous Skin Lesions.

The most common sites in order of frequency were the nape of the neck, the cheeks, and upper part of the chest. In two patients both eyebrows were involved. In one of these patients, scaly, depigmented, faintly erythematous patches were seen over the eyebrows, resembling erythema streptogenes. *Trichophyton tonsurans* was isolated from the eyebrows and from the depigmented patches. Such clinical manifestations were first observed by Ota (1922) in Manchuria, who noted "small, whitish, scaly patches over both eyebrows" of a child, from which he isolated a new species, *Microsporum ferrugineum*. Similar observations were made by the writer in Shanghai, and by Aoki (1922) in Japan, who saw "pityriasisiform lesions" on the face of children and considered the process of a mycotic nature without determining the causative fungus.

In one case, a slightly scaly, mildly lichenified patch was seen on the left leg of a 13-year-old girl. This patient resembled cases simulating neurodermatitis circumscripta of the nape of the neck, as described by Pipkin (1953). In one boy, several circinate, crusted, eroded lesions were observed on the forearm. The clinical picture was suggestive of impetigo circinata. From the lesions *Trichophyton tonsurans* was cultured. None of these patients had tinea capitis.

EPIDEMIOLOGY.

In the available literature no mention is made that *T. tonsurans* is transmitted through animals. It is therefore most likely that the fungus is transmitted through infected objects such as combs, brushes and headgear. This was our assumption in relation to the outbreak at Mount Loretto Home. Despite severe and strict precautions enforced, the disease affected seven children during a period of eight months. It is of interest to mention that girls were infected in a larger proportion (61.6%); this may be only a peculiar coincidence, and not a sex-limited predisposition.

MYCOLOGY.

Skin and nail scrapings reveal hyphal elements which are similar to other dermatophytes. At times, the arthrospores are slightly rounded. The hair shows typical endothrix features characterized by long straight chains of spores

or hyphal elements. Some of our cultures, but particularly those isolated from Puerto Rican patients, were waxy at the beginning and developed in the first ten days an intense yellowish, rusty pigment which has some resemblance to *M. ferrugineum*. In 12 to 14 days this intense pigment changes to a delicate primrose, at times a greyish hue, and the surface of the culture becomes velvety. Radial furrows and convolutions develop at this time. The subsurface of older cultures always showed an intense cherry-red to brown colour. Because of the frequently observed spontaneous variations of several cultures, we are in agreement with several mycologists who consider *T. sulfureum*, *T. cerebriforme*, *T. acuminatum* and *T. crateriforme* all to be cultural variants of a single species, *T. tonsurans*.

It is of added interest that microscopical examination of these cultural variants showed identical mycological structures. The chief characteristics are long septate hyphae, at times revealing light brown pigment, particularly in young cultures. Some of the hyphae show knobby protuberances. Microconidia develop laterally on short stalks and are either pyriform or elongate. Clusters of such spores are frequently seen alongside the hyphae. The number of chlamydospores depends on the age of the culture. Macroconidia are rarely observed.

TREATMENT.

As with *M. audouini* infection of the scalp, topical applications alone are not generally effective in tinea capitis due to *T. tonsurans*. X-ray epilation may be helpful to a certain degree, but a large number of our patients spent several months (up to 1½ years) in the tedious removal of broken hair stumps. Topically, 1% tincture of iodine and the application of ammoniated mercury produced a violent reaction (formation of ammoniated complex of mercuric iodide). This form of treatment, though at times painful, seems to have some advantage.

In two patients repeated applications of carbon-dioxide snow seemed to have some effect. The inflammatory changes thus produced may be compared with a kerionic reaction and cure was achieved after the application of anti-phlogistic or antibiotic agents.

The therapeutic response to x-ray epilation alone that occurs in tinea capitis caused by *M. audouini* or *M. canis* does not occur in *T. tonsurans*.

Lesions of the glabrous skin responded equally well to either Whitfield's or ammoniated mercury ointment, and also to the application of Desenex, Asterol or Decupryl.

SUMMARY AND CONCLUSIONS.

(1) From 1947 to 1953 44 patients infected with *T. tonsurans* were seen, of which 15 were males (34.1%) and 29 females (61.6%); the highest peak was

seen in 1951 (23 patients). The scalp was infected in 29 patients and only glabrous skin in 11 cases. Concomitant infections of the glabrous skin and of the scalp were seen in three patients.

(2) An endemic focus was found at Mount Loretto Home, affecting seven children during an 8-month period.

(3) In addition to previously reported unusual skin manifestations caused by *T. tonsurans*, an erythema streptogenes-like and an impetigo circinata-like clinical picture are described.

(4) It is proposed that for the present *T. tonsurans* should be the generic designation for the group of fungi which includes the following species: *T. sulfureum*, *T. cerebriforme*, *T. acuminatum* and *T. crateriforme*.

(5) The difficulties in treating the scalp lesions are emphasized, particularly the fact that x-ray epilation alone has not curative value.

REFERENCES.

- AOKI, M. T., quoted by Ota, M. (1922).
BENHAM, R. W., Personal communication, quoted by Lucille K. Georg (1952).
GEORG, L. K. (1952) *Publ. Hlth Rep., Wash.*, **67**, 53.
HOWELL, J. B., WILSON, J. W., and CARO, M. R. (1952) *Arch. Derm. Syph., Chicago*, **65**, 194.
KLIGMAN, A. M., and CONSTANT, E. R. (1951) *Ibid.*, **63**, 493.
LEWIS, G. M., and HOPPER, M. E. (1948) *An Introduction to Medical Mycology*. 3rd. ed. Chicago : The Year Book Publishers, Inc.
MONTGOMERY, R. M., HEINLEIN, J. A., KARPLUK, F. E. (1948) *N.Y. St. J. Med.*, **48**, 629.
OTA, M. (1922) *Bull. Soc. Path. exot.*, **15**, 588.
PIPKIN, J. L. (1953) *Arch. Derm. Syph., Chicago*, **66**, 9.
-

FAMILIAL HAEMATOMATA.

RONALD CHURCH, M.A., M.D., M.R.C.P.Ed.,

Senior Registrar,

AND

I. B. SNEDDON, M.B., CH.B., M.R.C.P.,

Consultant Dermatologist,

The Rupert Hallam Department of Dermatology, Sheffield Royal Infirmary.

THE inheritance of birthmarks is more common in fiction than in fact, and in angiomas hereditary is recognized as a factor only in haemorrhagic telangiectasia (Rendu-Osler-Weber disease) and in that rare intracranial angiomatosis, Lindau's disease (Sorsby, 1953).

Cavernous haemangiomas are occasionally seen in siblings, but in no greater frequency than can be explained by coincidence and in these cases they follow the usual course, arising at or soon after birth and resolving spontaneously after a few years.

The case record which follows is that of a hitherto undescribed familial cavernous angiomatosis in which the lesions appeared for the first time about puberty—which according to Sequeira, Ingram and Brain (1947) is the common age of onset of many congenital abnormalities.

CASE REPORT.

The patient, a woman aged 30, attended hospital complaining of blue tumours on her arms and legs which had first appeared about the age of 10 years, had continued to increase in number, and had recently appeared in more conspicuous sites on the backs of her hands. The lesions had never bled or caused any discomfort and her sole complaint was of their unsightly appearance.

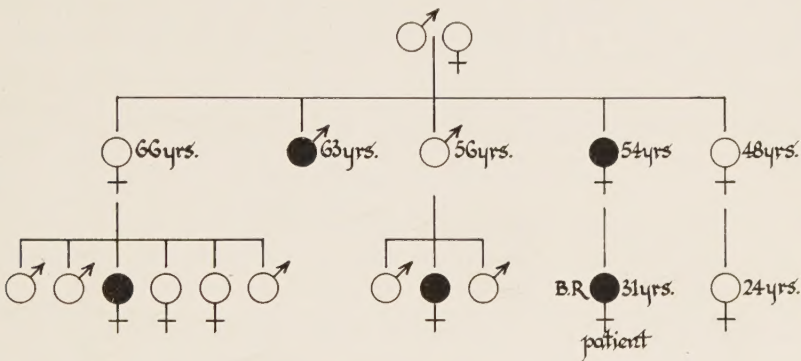
Scattered over the forearms, backs of the hands and in an almost linear distribution over the thighs and legs were multiple blue nodules varying in size from a few millimetres to protruding lobulated tumours of two to three centimetres diameter. All had the soft consistency of a cavernous haemangioma, but the colour was quite unlike that of most haemangiomas, which are commonly red or purple, being a bright slaty blue similar to that of a blue naevus.

Accompanying the patient was her mother who was able to show a similar slaty blue nodule on her arm which had arisen three years previously.

Further enquiries elicited the family history shown in the Figure.

One of the grandparents is thought to have had similar lesions but opinion in the family differs as to which.

Histology (Dr. L. Hermitte).—The section shows large blood spaces lined by endothelium, supported by fine fibrous connective tissue. The appearances indicate a large benign venous cavernous haemangioma of the skin.



We have been unable to find any reference to a similar familial disorder. It can be easily differentiated from the hereditary haemorrhagic telangiectasia of Rendu-Osler-Weber disease by its clinical appearance, the absence of haemorrhage and the histological findings.

The conspicuous and unsightly angiomas on the hands about which the patient first complained have been removed by excision and diathermy. Those on covered parts it was not considered desirable to treat.

REFERENCES.

- SEQUEIRA J. H., INGRAM J. T., and BRAIN R. T. (1947) *Diseases of the Skin*. London: Churchill.
 SORSBY, A. (1953) *Clinical Genetics*. London: Butterworth.

THE EFFECT OF HIGH CONCENTRATIONS OF PENICILLIN ON *LEISHMANIA TROPICA*, *IN VIVO* AND *IN VITRO*.

FELIX SAGHER,

Department of Dermatology and Venereology ;

AVIVAH ZUCKERMAN,

Department of Parasitology,
Hebrew University Hadassah Medical School, Jerusalem, Israel;

CHARLES R. REIN AND DELMAS K. KITCHEN,

Department of Dermatology and Syphilology, New York University Postgraduate Medical
School, and the Skin and Cancer Unit of the New York University Hospital.

THE relatively low doses of penicillin commonly used in therapy are generally conceded to have no effect on *Leishmania tropica* either *in vivo* (Snow, 1944 ; Dostrovsky *et al.*, 1946) or *in vitro* (Halawani and El Kordy, 1946). Adler and Pulvertaft (Adler *et al.*, 1948) found that leishmania in culture was inhibited by crude preparations of penicillin, but that purified penicillin had no effect. Although secondary bacterial infection of leishmanial lesions may be controlled by such treatment, the primary leishmanial lesion has been observed to remain unaffected (Sen Gupta and Chakravarty, 1945 ; Constantini, 1947 ; Pisacane, 1948 ; Lefranc, 1949*a, b* ; Méchin and Si Hassen, 1949).

The incorporation of small quantities of penicillin in leishmanial cultures in order to suppress bacterial skin and air contaminants has for years been standard procedure in our laboratories and in others (Ansari, 1945 ; Mukerjee, 1945), and no inhibition of the parasites has been observed as a result of this practice.

Since treatment as described in the literature has hitherto been restricted to relatively low dosages, we undertook a study of the effect on *L. tropica* *in vivo* and *in vitro* of maximum quantities of penicillin which may conveniently be administered to patients without causing local trauma.

A strain of *L. tropica* isolated in May 1950 from a recent immigrant from Baghdad with relapsing cutaneous leishmaniasis was used throughout this study. This strain has been shown to be capable of inducing typical nodose leishmanial lesions in unexposed subjects (Dostrovsky *et al.*, 1952).

Treatment of Experimentally Induced Cutaneous Leishmaniasis with Large Doses of Penicillin.

Twenty-two patients suffering from leprosy in various stages of the disease were inoculated with *Leishmania tropica* as a prophylactic measure against the natural acquisition of oriental sore.

One million living culture flagellates were injected over the left deltoid region in each patient on 10 September 1951. An intradermal leishmanin test (100,000 killed flagellates in 0.1 ml. saline containing 0.5% phenol) was negative in all the patients before the inoculation. Cultures and biopsy smears were collected from the inoculation sites on 26 September and again on 21 November, prior to the initiation of penicillin treatment. Parasites were found in all 22 inoculation lesions. A series of biopsies for histological study were performed at varying times, and this material is being analysed in a separate study.

In order to ascertain the therapeutic value of large doses of penicillin, 10 patients were treated with a series of injections of penicillin in oil,* and 12 untreated cases served as controls. Treatment with penicillin in oil was begun on 13 December; the daily dose was 1.2×10^6 units, and the total dose administered was between 9.6 and 16.8×10^6 units. Such quantities were at or close to the maximum doses which might be given, since they induced local lesions at the site of administration in some of the patients treated.

The serum concentration produced and maintained by a single injection of 1.2×10^6 units (1 depot) of microcrystalline procaine penicillin in oil with aluminium monostearate has been determined by Kitchen, Thomas and Rein (1949). The peak serum concentration at one hour following such an injection was slightly below 0.5 units per ml. of serum, and subsequently fell to below 0.03 units per ml. on about the eighth day.

Case Histories.

1. 27-year-old male. Total dose, 16.8×10^6 units, administered over a period of 3 weeks. Daily injections were not feasible owing to local infiltrations at the sites of injection. At the beginning of treatment the lesion measured 3 mm. in diameter. During treatment it grew steadily and reached a diameter of 1.2 cm. at the last examination on 18 April 1952.

2. 35-year-old male. Total dose, 16.8×10^6 units. Treatment discontinued owing to painful infiltrations at the sites of injection. The leishmanial lesion grew during and following treatment to a maximum diameter of 1.5 cm. at the last examination on 18 April 1952.

3. 23-year-old male. Total dose, 14.0×10^6 units. The inoculation lesion followed the same course as in Case 2.

4. 24-year-old male. Total dose, 13.2×10^6 units. Inoculation lesion flat, practically healed at the final examination on 18 April 1952.

5. 36-year-old male. Total dose, 16.8×10^6 units. On 18 April there was still a slight infiltration 1 cm. in diameter, with a central crust.

6. 23-year-old male. Total dose, 16.8×10^6 units. Inoculation lesion remained unchanged during the entire period of observation.

7. 18-year-old female. Total dose, 16.8×10^6 units. Inoculation lesion grew from 4 mm. to 1.2 cm. in diameter at the last examination on 18 April 1952.

* In this study "penicillin in oil" refers to Bristol Laboratories Inc. Flo-cillin "96" (crystalline procaine penicillin G in oil, with 2% aluminium monostearate (P.A.M.)); and "penicillin in saline" refers to penicillin Schenley crystalline G of Schenley Laboratories Inc.

8. 21-year-old female. Total dose, 16.8×10^6 units. Inoculation lesion grew from 6 to 8 mm. at the final examination on 18 April 1952.

9. 36-year-old female. Total dose, 16.8×10^6 units. Inoculation lesion grew from 8 to 10 mm. during the same observation period as above.

10. 40-year-old female. Total dose, 16.8×10^6 units. Infiltration of the inoculation lesion remained unchanged during and after treatment.

Cultures and histological examinations during the four months following completion of therapy revealed parasites in the lesions. Since our method of assay of the presence of parasites was not quantitative, our data yield no information on possible partial suppression of leishmania, but they do indicate that total suppression was not obtained. Leishmanial lesions in the treated and control groups were, however, indistinguishable from one another during and after treatment. In both groups, all but one were completely healed one year after inoculation.

The leishmanin test became positive in all patients, and was repeated for the last time six months after inoculation.

Treatment of Naturally Occurring Cutaneous Leishmaniasis with Large Doses of Penicillin.

Ten patients with naturally acquired cutaneous leishmaniasis were treated with penicillin in oil. Four of them were suffering from leishmaniasis nodosa, the initial boil-like lesion, containing numerous *L.-D.* bodies; and six had leishmaniasis recidiva, the relapsing type of lesion, consisting of peripheral foci around an old healed leishmanial scar, and generally containing very few *L.-D.* bodies. In all patients parasites were demonstrated in smears or by culture, except in one in whom diagnosis was made on clinical evidence only and with the help of the leishmanin test, which was positive in all ten. Biopsies revealed a granulomatous lesion containing parasites in the four patients with leishmaniasis nodosa, and a tuberculoid granuloma was found in the six patients with leishmaniasis recidiva. The ages of the patients ranged from 6 to 54 years. The total dose of penicillin in oil administered was 16.8×10^6 units except in a 6-year-old child who received 9.5×10^6 units.

In four cases with marked secondary bacterial infection there was a reduction of swelling after treatment. However, the infiltration typical of the leishmaniasis nodules remained, and no leishmanial cure was observed during an observation period of about 6 months.

Exposure of Cultures of Leishmania tropica to Large Doses of Penicillin.

Stock cultures of *L. tropica* were maintained on a semi-solid medium consisting of nutrient agar, Locke's solution and fresh defibrinated rabbit blood, as described by Adler and Theodor (1926). Appropriate quantities of penicillin

were incorporated in sterile aliquots of this medium to yield a series of concentrations between 5 and 75,000 units per ml. Five units of penicillin per ml. medium is the amount employed by us as a routine control against contamination, and 75,000 units per ml. is well beyond the maximum dose administered *in vivo*.

Experiments were done in two parallel series with penicillin in oil and with penicillin in saline. In every experiment two cultures were prepared for each dilution of each penicillin preparation. A million viable leptomonads were seeded into each tube containing 4.5 ml. of medium with or without drug, and the cultures were incubated for from 8 to 10 days at 28° C. Each culture was then thoroughly homogenized, and a Thoma cell count of the number of flagellates per unit volume was made. Cultures were subcultured in stock medium free of penicillin to determine viability of the treated parasites. Only in cases where such subcultures remained negative after 2 weeks' incubation were the treated flagellates assumed to be non-viable.

Fig. 1 represents the effect of increasing concentrations of penicillin in oil and in saline on flagellates *in vitro* 8 days (A) and 10 days (B) after inoculation.

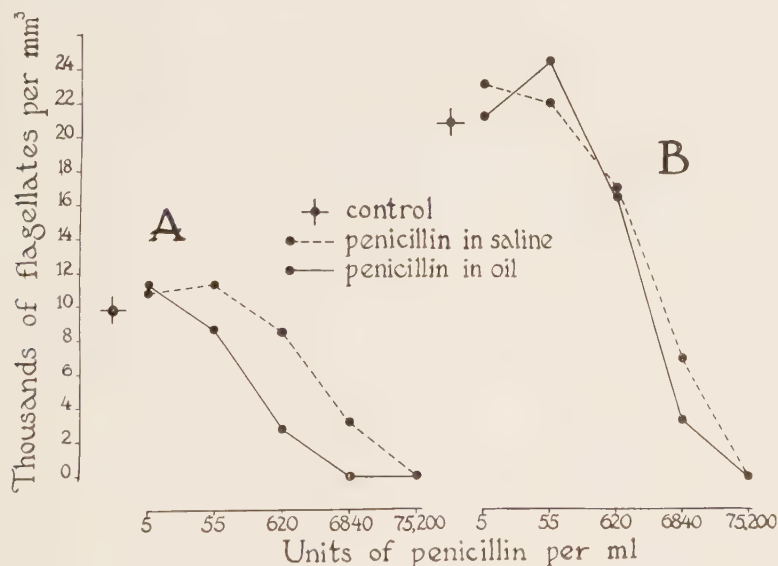


FIG. 1.—Effect of varying concentrations of penicillin in oil and in saline on the growth of *Leishmania tropica* in culture. A, 8-day cultures; B, 10-day cultures. Each point represents the mean value of two duplicate cultures.

Each point on the graph represents the mean number of flagellates observed in two duplicate cultures.

Control counts of cultures in stock medium devoid of penicillin showed that 5 units of penicillin per ml. had no perceptible effect on growth. The effect

of 55 units was negligible or slight, and in one case actually appeared to be somewhat stimulating. Increasing concentrations of both preparations of penicillin beyond this point progressively inhibited growth of the organism, and 75,200 units per ml. of either preparation was totally suppressive in all cultures made. In cultures examined on the 8th day penicillin in oil appeared to be somewhat more effective than that in saline, but by the 10th day the two curves were virtually identical.

Concentrations of 6,840 units per ml. and higher had a perceptible effect on the physical state of the medium. Erythrocytes which had retained a fairly normal appearance after 10 days in lower concentrations of penicillin were destroyed at 6,840 units and at higher concentrations. Ten-day cultures containing 75,200 units per ml. of penicillin in saline were pinkish brown and opaque instead of claret-coloured and translucent, as were the other cultures. Under the microscope the opaque medium was seen to contain extensive masses consisting of pinpoint granules, and all trace of organized erythrocytes had disappeared. The granules were non-bacterial, since subcultures of the opaque medium remained bacteriologically as well as parasitologically sterile.

Doses of penicillin observed to be suppressive in cultures were considerably greater than those found to be ineffective *in vivo*. In the *in vivo* experiments it was assumed that the penicillin was more or less uniformly distributed throughout the subject's body. Patients ranged in weight from 20 to about 80 kg., and received a total of between 200 and 500 units penicillin per g. body weight. Since the penicillin was administered in a series of injections rather than all in a single dose, its concentration at any time would always be less than that mentioned above, owing to progressive degradation of the drug in the patient's body. If there should be any tendency towards selective concentration in the leishmanial lesions, even a 10-fold increase of this sort locally would not bring the dosage into the range found to be suppressive in cultures.

SUMMARY.

1. The largest dose of penicillin in oil which may conveniently be administered (200 to 600 units per g. body weight, daily dose between 15 and 60 units per g. body weight) had no perceptible effect on naturally or experimentally induced lesions of *Leishmania tropica* in human subjects. Secondary bacterial invasion of the lesions was reduced, but viable Leishman-Donovan bodies remained, and were demonstrable both microscopically and in culture.

2. Concentrations of 600 units or more of penicillin in oil or in saline per ml. of medium progressively inhibited growth of cultures of *L. tropica*. Seventy-five thousand units per ml. of either preparation was totally suppressive.

3. Doses of penicillin in oil markedly inhibitory or suppressive in cultures were far in excess of the maximum doses of the same penicillin preparations which may conveniently be administered to patients.

4. Penicillin in the preparations available at the present time is not a suitable drug for the clinical treatment of *L. tropica* lesions, except for the purpose of reducing secondary bacterial invasion.

REFERENCES

- ADLER, S., TCHERNOMORETZ, I., and BER, M. (1948) *Ann. trop. Med. Parasit.*, **42**, 1.
 ADLER, S., and THEODOR, O. (1926) *Ann. trop. Med. Parasit.*, **20**, 355.
 ANSARI, N. (1945) *C. R. Soc. Biol., Paris*, **139**, 897.
 CONSTANTINI, H. (1947) *L'Afrique Française Chirurgicale Algiers*, **5-6**, 295.
 DOSTROVSKY, A., GUREVITCH, J., and ROZANSKY, R. (1946) *Harefuah*, **31**, 209.
 ——— SAGHER, F., and ZUCKERMAN, A. (1952) *Arch. Derm. Syph., Chicago*, **66**, 665.
 HALAWANI, A., and EL KORDY, M. I. (1946) *J. roy. Egypt. med. Ass.*, **29**, 20.
 KITCHEN, D. K., THOMAS, E. W., and REIN, C. R. (1949) *J. invest. Derm.*, **12**, 111.
 LEFRANC, M. (1949a) *Algérie méd.*, 153.
 ——— (1949b) *Ibid.*, 331.
 MÉCHIN, R., and SI HASSEN, A. (1949) *Arch. Inst. Pasteur Algér.*, **27**, 312.
 MUKERJEE, S. (1945) *Ann. Biochem.*, **5**, 95.
 PISACANE, C. (1948) *Progr. med., Napoli*, **4**, 33.
 SEN GUPTA, P. C., and CHAKRAVARTY, N. K. (1945) *Indian med. Gaz.*, **80**, 542.

ROYAL SOCIETY OF MEDICINE.

SECTION OF DERMATOLOGY.

President—Dr. R. T. BRAIN.

15 October 1953.

Mongol Spot.—Dr. J. E. M. WIGLEY.

Mrs. D. P—, aged 29.

History.—She had noticed a dark discoloration just in front of her left ear for the past 15 years. She thinks it may have increased in size in the past 2 or 3 years. There is no physical discomfort.

She has never used argyrol or any silver preparation for any reason.

On examination.—A brunette with a somewhat oily skin. There is an irregular area of mottled slate-blue pigmentation over the left side of her face immediately in front of the ear. This extends from the hair margin nearly to the angle of the jaw and nearly as far forward as the malar prominence. The whole area looks darker than the rest of the face and has a somewhat rougher surface. The skin over the area feels a little thickened. On vitropressure there is no appreciable change of colour. The glands of the neck are palpable and not enlarged.

Histology (Dr. H. Haber).—The epidermis shows a hyperpigmented basal cell layer. Throughout the corium there are quite a number of typical ribbon-shaped cells filled with fine melanin granules. They lie between the tissue spaces of the collagen and are also seen to surround follicles. There are also a few dendritic cells, probably cross-sections of the ribbon-shaped cells. The inflammatory reaction is mild. The histology shows the characteristic appearance of a Mongolian spot.

When I first saw her Dr. Haber called my attention to Bettley's report of a case of "Progressive Melanosis of the Skin" which seems to be very similar to this case.

Bettley comments on Darier's remark that there were "many points in common with the blue naevus of Tieche and with the Mongol spot," but that it "differed in its progressive growth, tumour formation, and regional glandular enlargement."

She has been rubbing in a cream containing 20% monobenzyl ether of hydroquinone daily for about the past 6 weeks and I think the colour has become distinctly less noticeable; she agrees.

REFERENCES.

- DARIER, J. (1925) *Bull. Ass. franç. Cancer*, **14**, 221.
 BETTLEY, F. R. (1938) *Brit. J. Derm.*, **50**, 181.

The PRESIDENT: Does one accept the term "Mongolian" for what one would usually call a "blue naevus" or reserve the term "Mongolian spot" for the blue spot above the gluteal cleft which is normal in Chinese children?

Dr. H. HABER: The blue naevus is the pathological counterpart of the Mongolian spot. Histologically, one cannot distinguish between them. In both there are heavily pigmented cells containing melanin. Some cells have a characteristic ribbon-shaped appearance. Some are dopa-positive, some are dopa-negative. The former are melanoblasts, the latter chromatophores.

Dr. F. RAY BETTLEY: The Mongol spot is present at birth and disappears fairly soon after whereas this type of lesion first appears later in life and then progressively grows. The lesion in my patient continued to grow slowly for 16 years and for this reason I called it "progressive

melanosis" and not "blue naevus." Darier (1925) recorded a few cases and said that there might be a benign lymph gland enlargement which contained melanin but not melanoblasts. This is rather different from a straightforward blue naevus.

The PRESIDENT: We get the same anomaly with the mast cell in urticaria pigmentosa which often occurs in infancy or is present at birth like a naevus but may more rarely appear in adults.

Bullous Pemphigoid with Dystrophic Changes.—Dr. R. H. MARTEN (for Dr. F. RAY BETTLEY).

Mrs. F. W—, housewife, aged 79.

History.—In June 1950 she noticed on the arms an irritating blistered rash which soon spread to the rest of the body. At this stage the lesions were typical of dermatitis herpetiformis. The eruption has shown exacerbations and remissions but has never completely cleared. At times blisters have been seen in the mouth.

In the past year she has been largely confined to bed and has depended upon her daughter for nursing care. In 1952 her palms and fingers became thickened and during the past year this has become worse. The soles of the feet are similarly affected, although to a less extent. During this time great changes have taken place in her finger-nails.

Past history.—Nil relevant.

Family history.—No bullous disorders and no history of nail dystrophy.

Examination.—There is a widespread eruption of areas of erythema, with scattered vesicles and bullae. The erythematous patches resemble those of erythema multiforme and have serpiginous outlines with central clearing. Very slight crusting and some degree of lichenification is present on the trunk and arms. Occasional intact bullae have been seen in the mouth. In the past widespread large bullae and erosions have at times predominated. The palms, fingers and soles are yellow and diffusely hyperkeratotic. The distal parts of the fingers are tapered, smooth and show loss of substance. The nails, especially those of the fingers, are dystrophic and some have almost disappeared.

Investigations.—(1) Haemoglobin 85%. W.B.C. 15,000. Polymorphs 34%, lymphocytes 9%, monocytes 3%, eosinophils 54%.

(2) Biopsy of intact bulla showed a subepidermal bulla; no acantholysis.

(3) Skiagrams of hands and feet: extensive osteoporosis of all bones of the hands and feet. No absorption of phalanges. No soft tissue calcification.

(4) No urinary porphyrins.

(5) Arsenic content of hair: 0.33 arsenic (as arsenious oxide in parts per million. Normal 0.05–0.005).

(6) Serum calcium 10.8 mg. %; serum phosphorus 2.9 mg. %; alkaline phosphatase 17.0 King-Armstrong units.

Treatment.—Aureomycin, chloramphenicol, liquor arsenicalis, sulphapyridine and ACTH all controlled the eruption temporarily but relapse occurred on withdrawal. The right hand and foot are being washed daily with soap and water to determine the effect of simple hygiene.

Discussion.—As the patient has been in bed at home for the past year defective hygiene might possibly allow keratin to accumulate and so produce the present picture. Long standing disuse could also account for the osteoporosis of the hands and feet. However, it is doubtful if the nail changes could be attributed to this cause. Tapered fingers are sometimes seen in scleroderma, but there is no loss of phalanges and no calcinosis in this case. Bullae have not been seen around the base of the nails so are unlikely to be responsible for the present nail changes. In contrast, there has been no nail loss in cases of pemphigus vulgaris with severe bullous involvement of the fingers.

The dystrophic form of epidermolysis bullosa may be associated with nail changes and perhaps a similar mechanism is responsible for the changes here. The associa-

tion of bullous pemphigoid with nail dystrophy may be coincidental, but the times of onset of the two conditions would suggest some connection.

I have been unable to find in the literature any other case of bullous pemphigoid or dermatitis herpetiformis associated with nail dystrophy.

Dr. H. T. H. WILSON: On the question of terminology, I consider it a retrograde step to call it bullous pemphigoid and prefer the title "Senile dermatitis herpetiformis."

Granuloma Annulare.—Dr. C. D. CALNAN.

E. C—, male, aged 26.

History: One year.—Small lumps have appeared on the backs of the fingers and hands. Some have subsided and recurred at the same site. Several of them have discharged thick creamy or glairy material. General health good.

Past history.—Good. Chest skiagram 1952: normal.

Family history.—Brother-in-law has pulmonary tuberculosis. Sister had a tuberculous chest in childhood.

Examination.—There is a symmetrical eruption of small nodules on the backs of the hands and fingers. Each is discrete, of pale lilac tint and has a central plug or crust. No lesions have left scars.

Histology.—Typical lesion of granuloma annulare except that the mass of necrobiotic collagen is in contact with the epidermis and no mantle of histiocytes surrounds the superficial border.

Comment.—This case is unusual in that the lesion is softer than the usual granuloma annulare and the epidermis is involved. Civatte (1952) has recently described 5 similar cases which he termed tuberculo-ulcerative or gummatous granuloma annulare.

REFERENCE.

CIVATTE, A. (1952) *Ann. Derm. Syph.*, **79**, 387.

Vitiligo Treated with Meladinine.—Dr. C. D. CALNAN.

A. Y—, female, aged 49.

History: One year.—Onset of fairly widespread white patches on the face and neck. She is Spanish, has dark hair and skin. She has, however, lived in England for nearly twenty years and is not unduly sun-tanned.

Past history: 1952.—Lipstick dermatitis (probably due to eosin sensitivity).

Treatment.

June 1953.—Painting of the vitiligo areas with meladinine twice a week followed by exposure to mercury vapour lamp. Meladinine tablets, 15 mg. three times a day. She took the tablets very irregularly at first because of abdominal upset, but had the equivalent of six weeks' treatment spread over eight weeks.

July 1953.—Intense erythema with some blistering and scaling. No change in pigmentation.

August 1953.—No change. All treatment stopped. She exposed herself to the sun frequently after this time.

September 1953.—Considerable repigmentation. The 4 in. × 2 in. area of vitiligo on the forehead is almost entirely normal. Large areas of the cheeks are normal and the rest show a freckled appearance due to areas of follicular repigmentation about 2 mm. in diameter. There is little or no pigmentation under the chin.

October 1953.—Further repigmentation. Forehead now normal. Upper lip and chin normal. Further areas on the cheeks have repigmented.

Comment.—Since El Mofty published his papers this Egyptian treatment for vitiligo has been tried in many European countries. Many workers have been

unsuccessful with it, but Sidi (1952) in France has reported successes. An important factor is the source of light. No artificial lamp is as effective as sunlight.

My purpose in bringing this patient here is to show that this treatment can be made to work if one can produce the right conditions. I have treated several other patients without success. This is the only one who has had the leisure to lie in the sun for long periods.

REFERENCES.

EL MOFTY, A. M. (1948) *J. Egypt. med. Ass.*, **31**, 651.

SIDI, E. W. (1952) *Pr. méd.*, **60**, 421.

Of the cases shown the following have been published in *Proc. R. Soc. Med.*, **47**, 171.

Plasma Cell Granuloma of Lips, Mouth and Larynx.—Dr. R. P. WARIN.

Naevus Vascularis Reticularis (Two Cases).—Dr. R. T. BRAIN.

The following cases also were shown :

Case for Diagnosis. ? Pityriasis Lichenoides et Varioliformis Acuta (Habermann).—Dr. I. MARTIN-SCOTT.

Case for Diagnosis. ? Pityriasis Lichenoides et Varioliformis.—Surg.-Lt.-Cdr. R. SCUTT.

Idiopathic Oedema.—Dr. M. FEIWEL.

BOOK REVIEWS.

TROPICAL DERMATOLOGY*

THE first volume of this work was reviewed in 1952 (*Brit. J. Derm.*, **64**, 478). This second and concluding volume deals with diseases due to animal parasites, fungi, allergy, malnutrition, metabolic disturbances and tumours of the skin, with a few chapters on miscellaneous matters. In addition there is a loose booklet defining fundamental clinical dermatological terms; it also contains a glossary of terms frequently used in dermatopathology.

The article on onychomycosis by Tibor Benedek will interest every dermatologist. He defines the condition as one actively and primarily caused by hyphomycetes which should be aetiologically directly responsible for all the morphological changes that the nail undergoes during the process, and he upholds the views of Sabouraud and other early workers that this kind of fungous infection is extremely rare. The mere presence of pathogenic hyphomycetes in the decaying material of the diseased nail is no proof of their aetiological merits. "*Clinically* the most important fact is that the affected nail plates remain in their *structural aspect* completely normal from the posterior nail wall down to the distal free edge. The surface of the whole nail plate is smooth shiny translucent. Their curvature is perfect both in sagittal and in lateral direction."

Without a primary injury from without hyphomycetes are apparently unable to invade the hard nail substance, and what is usually called onychomycosis is "most probably the chronic, usually far advanced form of pompholyx of the nail organ when not the secondary infection of any 'occupational' involvement." Benedek says emphatically that x-ray irradiation should never be given for pompholyx of the skin or of the nail organ, nor should there be any surgical interference with the nail.

There is an interesting comment on pruritus ani which is less common in tropical than in temperate climates, perhaps due to the habit of washing the anus after defaecation—"this is of particular significance in view of the statement that pruritus ani is a psychosomatic affection, supposed to originate in complexes set up in youth, *inter alia* through toilet- and bowel-training, disturbances of psychosexual development, etc. But it is precisely in those countries where toilet-training is part of a rite or "anal ceremonies" (paederasty in the initiation of young men among Central American Taino-Indians) that pruritus ani is less frequent."

As in the first volume there is some variation in the quality of the contributions and overlapping of matter in the articles. Kerion, which is not mentioned in the supplementary booklet, has a single reference in the index and is nowhere fully described. In some instances no guide is given to the comparative value of various fungicides listed which include the phenol-camphor paint for tinea pedis.

The numerous illustrations and the general set-up of the book are equal to those in the first volume.

G. W. B.

**Handbook of Tropical Dermatology and Medical Mycology*. Vol. II. By R. D. G. Ph. Simons. Amsterdam: Elsevier Publishing Co. Distributors: Clever-Hume Press, London, 1952. Pp. 854-1705. 510 Illustrations. Price £10 for 2 volumes. Separate volumes not available.

DERMATOLOGIC MEDICATIONS.*

This small book is arranged largely as a pharmacopoeia of medicaments used in dermatology rather than as a dermatological text book. The latter part of the work is however devoted to the treatment of a few of the more common conditions met with in dermatological practice.

Most of the advice given is sound and would be accepted as standard treatment, and one is gratified to see the topical use of penicillin and streptomycin condemned.

Some of the preparations mentioned are unfamiliar being essentially American products, many of them proprietary brands.

P. D. S.

AFFECTIONS OF THE HAIR AND SCALP.*

So far as memory serves, Sabouraud was at one time Director of the City of Paris Dermatological Laboratory in the St. Louis Hospital and Masson et Cie. were his publishers. It is fitting therefore that this same House should publish this volume, edited by A. Desaux, formerly *Assistant de Consultation de l'Hôpital Saint-Louis*, and having as contributors fourteen distinguished dermatologists who were once Sabouraud's pupils. Unlike certain works inspired by piety this volume is a valuable contribution to our literature, and as few of us have not been influenced to a greater or less degree by the work of the French School concerning the matters with which it deals, it can be warmly recommended for purchase. Further, it is a good example of the renaissance of fine French printing, with excellent illustrations and clear type.

The book is divided into four parts: the first—quite short and written by Desaux—is largely a rapid survey of the subject matter of the main work; although competent it is addressed primarily to the student, the general practitioner and the embryo dermatologist. In such a setting it is somewhat redundant. The second part, written by Boutelier, deals with anatomy, physiology and hygiene. The handling of the first and the last of these sections is satisfactory; Boutelier's views on physiology are interesting, but he gets into deep water in several pages concerning endocrine and alimentary factors, and it is disappointing not to find any reference to the recent work by Rothman and Wheatley on sebum.

The third part concerns diseases of the hair and scalp: Pignot reminds us of the benefits of manual epilation in the treatment of *acne nuchae*; he regards *acne necrotica* as being due to hypersensitivity to "*germes acnéigènes*"; *inter alia* he gives, with due warning, formulae for penicillin ointments which may be used in treatment, but makes no reference to the other antibiotics. Later in the book he considers psoriasis. Here as elsewhere it becomes obvious that the French School have little use for emulgents, for the majority of ointments—and there are scores of formulae—have lanolin or soft paraffin bases. Rabut's section on Traumatic and Artificial Affections is well worked out. As was to be expected, Touraine contributes a masterly chapter on congenital abnormalities, and Desaux on eczema, eczematides and baldness is equally worth perusal.

It is disappointing that Rabut in considering *tinea amiantacea* makes no reference to Herbert Brown's views: his contributions on lichen planus and lupus erythe-

* *Dermatologic Medications*. By M. R. LERNER and A. B. LERNER, 1954. Chicago: Year Book Publishers, Inc.. (Distributed by Interscience Publishers, Ltd., London.) Pp. 183. Price 24s.

* *Affections de la Chevelure et du Cuir Chevelu*. By various authors. Edited by A. DESAUX. Paris: Masson et Cie, 1953. Pp. x + 780. 298 figs. Price 5000 francs.

matusos seem to have been compressed too much, and possibly he was strictly limited in the space allotted to him ; but his essay on pseudo-pelade is of a very high calibre and his section on scleroderma interesting.

Pignot on pityriasis capitis simplex states that the bottle bacillus of Unna "*semble bien être le microbe spécifique du pityriasis*" and goes on to say that at the present time the majority of dermatologists regard the Spores of Malassez as the parasitic cause of the malady. But surely the majority of dermatologists at least skim through the pages of this Journal ?

Boutelier's section on seborrhoea and seborrhoeic maladies could with benefit have been extended ; Pignot on coccal infections states quite dogmatically "*il n'y a qu'un impétigo et il est streptococcique*"—an opinion which seems but another example of difference in national viewpoint.

Boutelier deals with syphilis : Gaté and Rousset with leprosy. Rivalier writes a long chapter on fungous infections ; the reader will find this most interesting, and is not likely to be discouraged by the differences between British and French nomenclature ; Civatte contributes an excellent chapter on tumours and the illustrations chosen by these authors deserve special commendation. In the final section of the book Montlaur considers diseases of infants' scalps, Brocq and Ramadier surgery of the scalp, Verdeaux psychopathology and Gaultier some medico-legal problems ; there are but few readers who will not discover here several matters of interest.

In summary, there can be no hesitation in stating that this is a good book and worthy of recommendation to dermatologists.

R. M. B. M.

THE ECZEMAS.*

ALTHOUGH this book, for the usual economic reasons, has had to be addressed primarily to the general practitioner it will be warmly welcomed by the specialist ; not only for the sake of chapters like that of Haxthausen—clearly written for the dermatologist's delectation and by itself well worth the money—but also for revealing glimpses into the minds of the talented contributors. As a symposium the book is well balanced. The writing is clear and elegant throughout. The editor has taken great trouble to integrate the work and has provided numerous cross references and glosses which add greatly to its value. Each chapter is furnished with some useful references. The volume itself and its typography (11 pt. "Times" leaded 2 pts. on art paper) conduces to the enjoyment of an important topic treated by authorities of international reputation.

The editor has himself contributed the introductory chapter and those on Disseminated and Endogenous Eczemas, Diagnosis, and the General Principles of Treatment. He is clearly a staunch supporter of the view that all eczema originates in some primary bacterial or chemical injury to the skin and that metastasis whether haphazard or symmetriotropic is brought about by noxae "admittedly in almost incredibly minute quality" (p. 147) absorbed from the damaged parts of the organ. Nevertheless he devotes some space to emphasize the indistinguishably eczematoid character of certain manifestations of dermatitis herpetiformis ; but that eczema as we know it could be primarily an endogenous exanthem is just not to be considered, and the sort of case that one feels sure will spring at once to the reader's mind is simply not described in this book. And again though he abhors the psychiatric answer to his own question (p. 154) "What makes this patient, out of all the persons

* *The Eczemas*. A Symposium by Ten Authors. Edited by L. J. A. LOEWENTHAL (1954). Edinburgh and London : E. S. Livingstone, Ltd. Pp. 267. 77 illustrations, 10 in colour. Price 35s.

with equal opportunity, contract this particular morbid condition ? " he describes in some detail not only the difficulties of history taking but the lack of co-operation in treatment due to prejudice, emotionally conditioned belief, and even instinctive hostility on the part of the patient towards those striving to help him.

The multiformity of cutaneous reactions to a single cause is referred back to Hebra's croton oil experiments. Do we really have to go back as far as 90 years for experimental work sufficiently lucidly and succinctly described ? And isn't poor old Hebra a bit out of date ? For when he used to see a little pus he just hadn't the knowledge to say the lesion was " secondarily infected".

Bettley in his chapter on contact eczema distinguishes between specific allergy to non-irritants, and a combination of physical damage with modified allergy in which he recognizes both the " detergent dermatitis of housewives " and industrial dermatitis, which is different not only in its tendency to metastasis but also in its "irregular time relations". He does not mention the often highly predictable manifestations of conditioned reflex, e.g., the prompt relapse of the soldier, recovered from eczema in hospital, on his arrival at the convalescent depot. He touches briefly on the nickel allergy of suspender dermatitis, which he believes to be primarily a constitutional eczema ; and the chrome allergy of cement workers which he regards as a true allergic reaction to chrome, facilitated by alkali damage to the horny layer. But how chrome can be washed out of cement without altering the cement itself is not so clear.

The conception of " primary irritant " is not really clearly defined by any contributor. Surely there are some substances which dissolve the skin, some which cause inflammation without attacking its structure, and still others which do neither but to which people may show idiosyncrasy as well as acquire sensitization ? What for instance is the meaning of the words " primary irritant " in the caption to Fig. 1 ? Several of the pictures belie their captions. Surely the buttocks in Fig. 56 show the impression of no ordinary chair. The french polisher in Fig. 23 holds his pad very oddly. Spectacle frames (Fig. 18) do not ordinarily come into contact with the lid margins.

Haxthausen has brought together and integrated with his own experimental work every recent contribution of any importance to the physiology of allergy. He is careful to distinguish between what has been proved to happen and speculations, for example the " protigen " hypothesis, designed to account for phenomena that remain obscure. He is also careful not to ignore the possibility that the behaviour of the epidermis may be due less to defect or perversion than to some vital function of the cell, the usefulness of which naturally escapes recognition by parties directly interested in the clinical effect.

The contributions of Sulzberger and Witten, on the subject of atopic dermatitis (flexural prurigo) and its treatment, contain nothing that is original and little that is new save a list of antibiotics and some reference to the use of ACTH and compounds E and F. But a collection of " useful prescriptions " of the old-fashioned type will appeal to the " busy practitioner". Their description of this syndrome is very poor indeed. Such important matters as complexion, physique and personality are not mentioned at all. On p. 82 they state " it is therefore practical and usually correct for the physician to assume that any itchy eczematoid eruption of an infant's face and scalp is probably atopic dermatitis " an opinion firmly contradicted in another chapter by Gordon. Without the slightest warning of the hazards (*ekzemotod*!) they recommend admission to hospital of small infants with eczema.

Grant Peterkin, in a concise and scholarly trifle deferring politely to almost every shade of opinion in this controversial matter of seborrhoea, puts back sternly in its place that upstart which has of late been attempting most impudently to usurp the field originally defined for it by Unna. But he does not conceal his awareness of the vacuum that might remain ; for he carries his clinical observations right up to

the frontiers with contact dermatitis and atopy. Out of his military experience that seborrhoea (and presumably also "impetigo") had a predilection for people of British stock he proposes conservative habits of nutrition as a cause of the disease and recommends a return to personal decoration with some or other kind of woad by way of treatment. The "average psychiatrist" pilloried on p. 230 might fairly retort that the sensible wordly-wise (*sic*) general practitioner (provided of course that he is sufficiently restricted in therapeutic opportunity) would naturally be of more help to the patient than the "average dermatologist" who, however sensible he might be, could with equal certainty neither be seen nor palpated. This paragraph indeed most succinctly exposes the need for more intelligent co-operation between the dermatologist and his colleagues, and its logical alternative.

Gordon, who takes great pains to convince us that nummular eczema is not really, however much it may seem to be (on the grounds of constant and characteristic lesion, distribution, clinical course, sex and age incidence, etc.), a clinical entity, speculates on the possibility that dermatitis of the hands in housewives, which "can often be cured by the use of a soap substitute" (p. 172) may be "a form of nummular eczema" resulting from the excessive use of soap and other alkalies. On p. 179 he tells us that the pigmentation in "hypostatic or varicose eczema" is due to haemosiderin and would even attribute some of the itching to it. Perhaps a patient who happens to suffer also from vitiligo will one day come to his rescue. He borrows from Gross the conception of "asteatosis" to account for the superficially cracked crazy-pavement appearance (Fig. 58) that we all know on the legs of elderly people, after excessive treatment with sulphur ointment, sometimes as a passing phase in generalized eczema, and occasionally as an isolated and evanescent symptom. But where is his evidence for altered epidermal fat metabolism: or is he after all talking about $\gamma\theta\upsilon\mu\iota\omicron\varsigma$?

Henry Haber provides a useful account of the histology and of its limitations in the diagnosis and study of eczema.

Burckhardt, well known as a pioneer in the study of the protective envelope of *homo faber*, describes his ingenious techniques for estimating the alkali-neutralizing capacity of the cutaneous surface and the degree of its resistance to damage. Now we all know that warm caustic potash does something to the horny layer that enables us to press out under a coverslip a scraping of it that we wish to examine under the microscope. Most of us have experienced the slippery feeling given to the hands by immersion in caustic alkali. We also know that we can spend a week-end cleaning off paint with caustic soda with little more harm than follows a much briefer contact, and we may even have reflected that if caustic potash really dissolved the horny layer it would be much more useful for removing stains than it is. This is the point at which most of us would like to begin our studies of this subject: what exactly does alkali do to the horny layer? But we are regaled instead with speculations as to whether the amino acids of the horny layer do or do not neutralize alkali; whether it is sebum that protects the skin of adults from alkali and how it acts; whether the higher pH of sweat in eczema is a factor in the lowered alkali resistance, and so forth. Damage to the horny layer by alkali is said to facilitate sensitization to other allergens. This certainly seems very likely indeed but the evidence still requires to be convincingly presented. The neutralization and resistance tests for acid do not, it seems, give anything like such decisive results. The skin of the forearm neutralizes anything between 0.15 and 0.45% HCl in one minute and a majority of people give a positive patch-test reaction (not of course an allergic one) to 8%. But surely we are much more interested in the effect the acid might have on the hands. Many of us will have seen the famous advertisement. Perhaps a few will have tried the experiment *without* the barrier cream. *Verb sap!*

Storck's observations carry still less conviction, and might appear to an unsympathetic reviewer to represent a phase in the increasingly desperate search for a

mechanistical explanation (other than conditioned reflex) of such phenomena as the persistence or relapse of a dermatitis, which may have originally been allergic, after cessation of specific contact. In the volume under review we are rightly or wrongly not permitted merely to say that "a chronic constitutional eczema has resulted from the attack of the prescribed disease." The conception of an *eczema maladie* whether psychosomatic, endocrine, metabolic, or just plain "seborrhoeic" is also taboo. The eczema was in the first place an effect of sensitization to A. A is no longer present but the eczema continues. Very well then, perhaps some of those "facultative serophytes" (Almroth Wright) we saw in the lesion have something to do with it. Now if we patch-test people with filtrates of broth cultures we get twice as many of people with eczema as of healthy subjects giving positive patch-tests with staphylococci and four times as many with streptococci. The patch-test appearances here illustrated emphasize the necessity of using angular (e.g., L-shaped) patches, for they look far too much like the effect of the rubbing with glass wool that was used to prepare the site. And it would perhaps have been only fair to the non-bacteriologist to explain that apart from both of them being commonly found in cutaneous exudates and in moist parts of the skin, their having rather similar names, and being spherical and very small these microbes have really very little in common. But we have to go a lot further than that. For it appears that the strains that produce furunculosis and impetigo are not the same as those which give positive patch-tests and the patient must have either one kind or another, both on his skin and in his nose. Now this might be a little awkward. Either the chronic eczema that sometimes follows a boil or an attack of impetigo in the unenthusiastic conscript is caused by sensitization to a microbe which has come to stay, and the author adduces in support of this view "the (good†) results of adequate antibiotic therapy"; or the patient has seborrhoeic eczema of the kind rightly abhorred by the editor, that comprises almost everything that can go wrong with the skin leaving bacteriology out of it altogether.

J. H. T. D.

† The use of *ex juvantibus* rather than *ex aggravantibus* presumably implies that the word left to be understood is this one.

CORRESPONDENCE.

To the Editor of 'The British Journal of Dermatology.'

DEAR SIR,—Dr. Loewenthal (p. 95) claims that the itching purpura which he describes differs in many respects from any that have been previously described. It does, however, resemble very closely the eruptions which, for want of a better name, have been called textile purpura. Although first recognized in soldiers by Twiston Davies and Barker (1944) and later by Hodgson and Hellier (1946) and ascribed by them to khaki garments, it has been seen to occur in this country in those who have not worn khaki. (Peterkin, 1948; Sneddon, 1952.) Hodgson and Hellier described in their cases the cayenne pepper spot, the shiny papule and the scale which are the features of the eruption described by Dr. Loewenthal.

The capillary resistance test in textile purpura is very variable although it is more often positive than negative on the area of eruption. In this textile purpura differs from the South African cases but it is not possible to discover from Dr. Loewenthal's figures whether he tested the capillary resistance of the affected limbs in every case.

It is likely that the cause of textile purpura and of Dr. Loewenthal's cases is some substance which causes a capillaritis, but whether the substance has reached the capillaries *via* the blood stream or through the skin is unknown. I feel Dr. Loewenthal dismisses the possibility of an external cause a little too easily. There is no doubt that such an eruption can be caused by ingestion of drugs of the carbromal type and I find it virtually impossible to distinguish, on clinical grounds alone, those eruptions supposedly due to textiles and those due to carbromal.

It would seem possible that this purpuric reaction of the skin may be a change comparable with the eczema reaction, some cases being due to external contact causes, some due to ingested allergens and some of purely endogenous origin.

Perhaps Dr. Loewenthal's cases fall into the endogenous group and that these are more itchy.

Yours faithfully,

I. B. SNEDDON.

Sheffield,
April, 1954.

REFERENCES.

- DAVIES, J. H. TWISTON, and BARKER, A. N. (1944) *Brit. J. Derm.*, **56**, 33.
 HODGSON, G. A., and HELLIER, F. F. (1946) *J. roy. army med. Corps*, **87**, 110.
 PETERKIN, G. A. G. (1948) *Arch. Derm. Syph.*, **58**, 249.
 SNEDDON, I. B. (1952) *Excerpta Medica*. Section XIII, **6**, 340.

THE FRANCO-BRITISH MEETING.

At the suggestion of Dr. Touraine the Committee of the *Société Française de Dermatologie* extended to the British Association of Dermatology an invitation to meet in Paris. This meeting was held on 12, 13 and 14 May with the following programme :

12 May.—Dr. H. Haber : Histological demonstration of Erythema Elevatum Diutinum and Intra-epidermal Epithelioma.

Dr. Duperrat and Dr. Hewitt : Histological demonstration.

13 May.—Demonstration of Clinical Cases. Sixty-eight cases were shown by (morning) many of the doctors of the St. Louis Hospital. This was followed by a conducted tour of the entire Hospital. The British visitors were entertained to lunch in the Hospital.

(Afternoon) Short Papers :

Dr. L. Forman.—Keratosis pilaris.

Dr. H. Gougerot and Dr. B. Duperrat.—Le trisyndrome de Gougerot.

Dr. F. R. Bettley.—The effect of mepacrine on light sensitivity in lupus erythematosus.

Dr. A. Touraine.—Les polykératoses.

Dr. G. C. Wells.—Clinical experience with hydrocortisone ointment.

Dr. R. Degos.—La papulose atrophiante maligne.

Dr. J. B. Lyon.—The evaluation of the sensitizing index of two cleaning agents.

Dr. M. Bolgert.—Les porphyries chroniques de l'adulte.

It is intended to publish all these papers shortly in this journal.

14 May.—Professor Degos gave a clinical demonstration of 14 cases of exceptional interest.

Fifty-five British dermatologists took part in this meeting and there were about 130 of our French colleagues. The meetings were held under the joint presidency of Dr. Rabut and Dr. Whittle, though naturally it fell to the lot of our hosts to bear the major burden of organization. It was the first time that a joint Franco-British meeting on such a scale has been held and it was so successful that it seems certain it will not be the last. The British visitors left stimulated and encouraged by the excellence of French dermatology and charmed by the courtesy and hospitality they received.

CURRENT LITERATURE.

A PRURIGINOUS FORM OF SCHAUMANN'S DISEASE. J. SCHAUMANN. (1953) *Ann. Derm. Syph., Paris*, 80, 457.

Six new cases of sarcoid are described in which the presence of prurigo nodules was a salient feature. With one previous case, this represents 10% of all the cases of sarcoid seen by the author, and yet there are only three records of such cases in the literature. The author considers the prurigo must be attributed to toxic products coming from the pathological tissue and working in an allergic fashion.

F. F. H.

ARTIFICIAL FLUORESCENCE IN ECZEMA. PIERRE TEMIME. (1953) *Ann. Derm. Syph., Paris*, 80, 477.

Intravenous injection of fluorescein produces fluorescence under the Wood's light in eczematous lesions in varying degree. If serum from an eczematous lesion is injected into normal skin, the site of injection fluoresces. The author considers that these phenomena are due to an alteration in the capillaries leading to increased permeability. He feels that this technique may be useful in exploring various aspects of skin inflammation and reactions.

F. F. H.

HISTOLOGICAL CHEMICAL STATES OF THE HUMAN SKIN. PART 2. THE CELLULAR SPACES. A. DUPRE. (1953) *Ann. Derm. Syph., Paris*, 80, 490.

Using the MacManus stain and other reactions the author demonstrates a complex lipo-glyco-protein body corresponding to the cement substance between epidermal cells. He believes that this is the source of the nodules of Bizzozero.

F. F. H.

GRAVE ACUTE FEBRILE PEMPHIGUS. X. VILANOVA and J. PINOL AGUADE. (1953) *Ann. Derm. Syph., Paris*, 80, 574.

An agricultural worker had an inpetigo-like lesion for a month and then suddenly developed widespread bullae with severe constitutional symptoms. Though he improved on penicillin, etc., he suddenly developed convulsions 8 days later and died. The authors discuss at length the nosology, differential diagnosis and pathogenesis of acute pemphigus without coming to any definite conclusion except that it should retain its individual identity.

F. F. H.

HYPERKERATOTIC GENO-DERMATOSES OF BULLOUS TYPE. S. LAPIERE. (1953) *Ann. Derm. Syph., Paris*, 80, 897.

A girl of 19 from birth developed blisters and, towards the end of the first year, erythrodermia and later hyperkeratosis especially in the large folds. Histologically there were vesicular changes with partial acantholysis in the upper part of the prickle cell and granular layers with the formation of dyskeratotic bodies. The literature is surveyed and for comparison 4 examples of Darier's disease in three generations of one family are described, all of whom showed blisters from birth and only 2 of whom survived infancy. He discusses the classification of "congenital ichthyosis", which is inherited as a recessive and not as a dominant like "true ichthyosis". The bullous form of congenital ichthyosis can be separated sharply from the non-bullous forms both on clinical and histological grounds without any intermediate forms. He lists the congenital bullous affections of infants and also the geno-dermatoses which can give rise to premature death. Hailey-Hailey disease he associates with bullous Darier's disease.

F. F. H.

EFFECT OF LOCAL ADRENALINE AND HISTAMINE ON TUBERCULIN REACTIONS. J. PEPYS. (1953) *Acta Allergol.*, 6, 265.

Histamine injected locally into Mantoux tests inhibits the reaction by enhancing the escape of tuberculin from the test site. Locally injected adrenalin also inhibits the Mantoux test, possibly by decreasing the cellular infiltrate and hampering the access of antibody-carrying lymphocytes to the test area. Enhancement of the tuberculin patch test by locally injected adrenalin may be due to retention of tuberculin in the skin.

H. T. H. W.

TREATMENT OF PEDICULOSIS CILIORUM IN AN INFANT. F. RONCHESI (1953)
New Engl. J. Med., **249**, 897.

The author says that no treatment is required beyond manual removal of the lice and nits with trachoma or cilia forceps, and avoidance of re-infection, which generally results from contact with breast or axillary hairs.

A. D. P.

THERAPY OF LYMPHOGRANULOMA INGUINALE WITH 7218. C. D. ALERGANT. (1953)
Brit. J. vener. Dis., **29**, 218.

Seventeen cases of lymphogranuloma inguinale treated with 7218 are described, and the author concludes that, while the drug is therapeutically active, toxic side-effects prevent it being regarded as a useful addition to the pharmacopoeia. The nature of the side-effects and their aetiology is described and discussed.

W. G. A.

ACTH GIVEN IN MINIMAL DOSES INTRAVENOUSLY. R. A. AGÜELLO AND R. GARZON. (1953) *Rev. argent. Dermatosis*, **37**, 65.

In view of the high cost and the difficulty of getting adequate supplies of ACTH the authors gave daily intravenous doses of 12.5 mg. in 250 ml. or 500 ml. of 5% dextrose or isotonic glucose solution run in at the rate of 16-20 drops a minute. Given in this way, the results seemed to be as effective as those of 100 mg. given by others.

G. W. B.

URTICARIA PIGMENTOSA IN UNIOVULAR TWINS. M. J. TEJEIRO and O. A. BONAFINA. (1953) *Rev. argent. Dermatosis*, **37**, 75.

This is the fourth recorded occurrence in uniovular twins. In this instance the onset was noted at 6 months old in both children who are now 3 years old.

G. W. B.

THE PLACE OF ANTIBIOTICS IN DERMATOLOGY. G. AUCLAND. (1953) *Med. Pr.*, **229**, 550.

A comprehensive summary is given of the antibiotics of general use in skin diseases. It is stressed that they are active only against bacteria and allied micro-organisms and their introduction into dermatology marks an advance because of the speed of cure.

It is still important to follow the principles of cleanliness without damage, elimination of contributory factors, both external and internal, and the rational application of treatment that will give the best therapeutic effect with the least harm.

H. R. V.

SYSTEMIC LUPUS ERYTHEMATOSUS : A CLINICAL AND PATHOLOGICAL STUDY. STEPHEN C. GOLD and N. F. C. GOWING. (1953) *Quart. J. Med. (N.S.)*, **22**, 457.

A review of the literature relevant to the condition with presentation of 26 cases of systemic lupus erythematosus, including 14 classified as acute, and the pathological findings in 7 patients who died.

It is considered that the discoid and systemic varieties of lupus erythematosus are intimately related. The discoid is a morphological skin reaction denoting sensitivity to an infective focus and the type of skin reaction depends particularly on the effect of weather. No pathological criterion for the differentiation of the discoid and systemic variants is available, the conditions being separated only by clinical judgment. Fibrinoid degeneration is a classical feature of the morbid anatomy of the systemic disease. This occurs experimentally in induced and in known hypersensitivity states. There is gross disturbance of antibody mechanisms with the occurrence of auto-antibodies. It is felt that the basis of the systemic disease process is the antigen-antibody reaction. The authors then, with others, suggest that the systemic disease represents a disturbance of the immune mechanism with the production of abnormal antibodies.

J. M. B.

PAPER CHROMATOGRAPHY OF THE SWEAT. H. WOHLNICH. (1953) *Derm. Wschr.*, **128**, 973.

By paper chromatography the author has demonstrated in the sweat all those amino acids (apart from ornithine) found by Corting in skin dialysate and in addition, for the first time, the presence of cystine, methionine, aspartic and glutamic acid and glycine, and the probable presence of proline and oxyproline. The cystine he demonstrates in psoriasis sweat by protracted

paper chromatography (48 hours and longer) and a phenol-free solution. He thus separates the cystine from the basic amino acids, and prevents its oxidation to cysteine (by excluding phenol): its presence can then be made manifest with ninhydrine. By the less sensitive nitroprusside sodium method also he is able to detect methionine in psoriasis and normal sweat (in the former in increased amount).
M.S.S.

POLYETHYLENEOXIDES AS OINTMENT BASES. L. MIDDENDORG. (1953) *Derm. Wschr.*, **128**, 997.

The fluid lower polymers of ethylene oxide are called polyethylene glycols in the U.S.A. and the solid higher polymers carbowaxes. Advantages of the polyethyleneoxides over the usual ointment bases of oil in water or water in oil type are that the former do not form a suitable medium for the growth of organisms or fungi, act like emollients but do not irritate the skin, are very stable and can be washed off with water; they do not become dry and so lead to undesirable concentration of incorporated drugs, and allow of better dispersion of water soluble substances and a better bactericidal action, so that such agents should be applied in weaker dilution than ordinarily; the pH can be varied by the addition of lactic acid or sodium lactate powder. They do not macerate the skin, are tolerated, e.g., on a seborrhoeic skin where other bases are not and have a drying soothing effect in exudative dermatoses: they do not dam back secretions, are cleansing and can be applied to ulcerated necrotic purulent areas. They can be made predominantly hydrophil or lipophil according to molecular weight, can be combined with fatty acids and higher fatty alcohols and are recommended for mycotic infections. Penicillin cream using this base should be kept cool and used within 2 weeks.
M. S. S.

STOMACH RESECTION AND DISTURBED BACTERIAL FLORA IN RELATION TO SKIN DISEASES. W. NIKOLOWSKI. (1953) *Derm. Wschr.*, **128**, 1165.

In 221 patients with a stomach resection scar certain diseases were found to occur more often: lichen simplex chronicus 6 times oftener than in general; alopecia areata in 4% instead of the usual 2.8%, seborrhoeic eczema in 9% instead of 3.8%, acne vulgaris, acne conglobata and acne necrotica more often and more severe, the acne tending to be cystic in type; follicular diseases in 15% of the operation cases and urticaria acute and chronic oftener than usual.

The author investigated also the bacterial flora of the faeces in 100 skin patients (unselected apart from 20 with endogenous eczema). Of these 49 had disturbed flora, but in a series of hydroa vacciniforme, prurigo aestivale, acute urticarial exanthem, prurigo nodularis, morbus Darier, ulcus cruris, pellagroid, argyrosis, etc., the flora unexpectedly were normal in all. In one child only, with a light exanthem, were there altered flora and a coli vaccine by mouth appeared to help there. Of the stomach resection patients with urticaria, disturbed flora were found in the chronic form only (in 50%) with sometimes a definite reduction in the number of normal organisms (no previous antibiotics) and one recurrent example benefited by coli implantation. Treatment of the disturbed flora did not always lead to benefit even when this was corrected as in one patient with acne conglobata: in this condition normal flora were encountered more frequently. The frequency of eczema and seborrhoeic eczema paralleled the finding of abnormal flora. Autogenous vaccine gave little or no benefit, but it was found that patients with abnormal flora reacted more strongly than others to an intracutaneous injection of a gas-forming paracolibacterium type of organism.
M. S. S.

IRGAPYRIN IN SUBACUTE ERYTHEMATODES TO TREAT VESSEL DAMAGE. H. LANGHOF. (1953) *Derm. Wschr.*, **128**, 877.

Three patients with febrile subacute erythematodes were treated successfully with irgapyrin and responded within 3 weeks. There were no side effects apart from an occasional slightly tender infiltration at the injection site which subsided in about 8 days. In the first patient 2.5 c.c. irgapyrin was given intramuscularly twice daily for 3 weeks, daily for a week, and finally twice weekly as a maintenance dose. In spite of porphyrinuria she was able to go into the sun without ill effect while under treatment. Relapse followed cessation of treatment from lack of supplies but yielded in a week to 5 c.c. thrice weekly: during the late summer 2.5 c.c. weekly. She remained well without irgapyrin during the late summer and winter while on a fat-poor lacto-vegetarian diet and was still well without it the following autumn. During irgapyrin therapy a sodium-poor diet was given to prevent water retention. Pyramidon, contained in irgapyrin, is said to thicken permeable vessel walls and thus allow the resorption of albumin-rich inflammatory oedema. Photographs accompany the text.

M. S. S.

THE PATHOGENESIS OF ULCUS CRURIS (ULCUS CRURIS NEUROANGIOSUS). G. MÁRÁ-MAROSI, E. NAGY, L. HELMECZI and I. SOMLYOI. (1953) *Derm. Wschr.*, **128**, 1237.

The writers used many tests to investigate their 60 patients. It was found that abnormalities detected with the capillary microscope in the affected leg were present also in other regions, e.g., upper limbs, suggesting a central control. In 45 of their patients testing revealed oscillation of hypertonic type and increased sweating in the affected limb in the majority of the patients. By treating this neurovegetative disturbance with phenobarbitone and thereby relieving ischaemia the authors had the impression that the ulcers healed more quickly. Varicosity of the veins accompanies only a certain proportion of ulcers of the leg and *ulcus cruris neuroangiosus* is suggested as a descriptive label for other suitable cases.

M. S. S.

A CASE OF ICHTHYOSIS CONGENITA WITH SHRINKAGE OF THE EYELIDS. G. WEBER. (1953) *Derm. Wschr.*, **128**, 1144.

Such patients seldom live beyond 10 years; this patient (*ichthyosis congenita* from birth) is aged 66; bilateral circular shrinkage of the eyelids, beginning at the age of 34, prevents closing of the eyes; ectropion and adhesions between the upper and lower eyelids. A plastic operation helped only temporarily. Choreiform movements of head, face, shoulders and upper extremities.

M. S. S.

ARMCHAIR DERMATITIS. F. F. HELLIER. (1954) *Brit. med. J.*, **1**, 502

Two recent examples of dermatitis traced to the leather of armchairs are described. Patch tests were positive in both patients.

B. A. T.

THE HERPES SIMPLEX VIRUS IN INFANTILE ECZEMA. G. I. BARROW. (1954) *Brit. med. J.*, **1**, 482.

Herpes simplex complicating two cases of infantile eczema are described, and also one case of *eczema vaccinatum*. Their relationship is discussed and the suggestion made that the term Kaposi's varicelliform eruption should be discarded. Persons afflicted with atopic eczema should be protected from herpetic and vaccinal contacts.

B. A. T.

MANAGEMENT OF THE COMMON VARIETIES OF SCALP RINGWORM. J. MARTIN BEARE. (1954) *Brit. med. J.*, **1**, 356.

The author deals with 1157 cases of *tinea capitis* seen between 1948 and 1952. Four types of organisms were responsible for 99%, viz., *M. audouini*, 899 cases; *M. canis*, 178 cases; *T. sulphureum*, 55 cases; *T. discoides*, 24 cases. It is possible to differentiate between them by simple clinical inspection and Wood's light.

B. A. T.

NEOMYCIN IN PYOGENIC SKIN DISEASES. R. CHURCH. (1954) *Brit. med. J.*, **1**, 314.

Ninety-three cases of pyogenic skin disease were investigated. *Staphylococcus pyogenes* was isolated and found to be resistant to penicillin in 46, to chloramphenicol in 18, and aureomycin in 2 cases. None resisted neomycin.

All were treated with neomycin ointment and the claim is made that in *sycosis barbae* the results were superior to those of all other antibiotics except aureomycin. Sensitization reactions were not encountered. Neomycin ointment is suggested as a routine treatment for impetigo and *sycosis barbae*.

Dr. G. A. Grant Peterkin in subsequent correspondence noted the absence of any reference to terramycin which he considered the most effective antibiotic in pyogenic skin disease and the most unlikely to provoke reactions. He thought that aureomycin came next and then possibly neomycin.

B. A. T.

CUTANEOUS MANIFESTATIONS OF PORPHYRIA. G. DISCOMBE and C. S. TREIP. (1953) *Brit. med. J.*, **2**, 1134.

A case of porphyria cutanea tarda in which the patient developed constipation and abdominal pain and died with widespread paralysis.

It is suggested that no reliable criteria exist by which "congenital porphyria" can be differentiated from "porphyria cutanea tarda" and that the two are biological variants of a single disease process.

The classification of the porphyrias is reviewed, and it is suggested that the most satisfactory classification is into visceral, cutaneous and mixed forms.
B. A. T.

PORPHYRIA CUTANEA TARDA IN RELAPSE, A CASE REPORT. R. J. CALVERT and C. RIMINGTON. (1953) *Brit. med. J.*, 2, 1131.

The patient had severe colic and neurological disturbances in addition to cutaneous manifestations. Porphobilinogen and uroporphyrin were detected in the urine once only; later, only coproporphyrin and protoporphyrin were present, and as the level of these declined that of the faecal porphyrin rose. Electromyography indicated gross denervation of the type found in polyneuritis.
B. A. T.

IODODERMA OF THE FACE AND MARKED EOSINOPHILIA. R. D. T. CAPE. (1954) *Brit. med. J.*, 1, 255.

The patient, a severe asthmatic, was treated with potassium iodide and developed iododerma with striking facial lesions. The hypersensitivity to iodine resulted in skin lesions, a marked eosinophilia, tachycardia and proteinuria.
B. A. T.

SKIN LESIONS AND DEAFNESS IN DISSEMINATED TUBERCULOSIS. A. W. LEES and I. B. MUNROE. (1954) *Brit. med. J.*, 1, 496.

Attention is drawn to the diagnostic importance of skin involvement in disseminated tuberculosis. Eight cases of the latter condition, four with subcutaneous lesions, are described. The skin signs were multiform and showed as abscesses, papules, pustules, petechiae and acneiform lesions. A relatively high proportion of patients suffering from disseminated tuberculosis were older persons.
B. A. T.

USE OF UNSATURATED FATTY ACIDS IN THE ECZEMAS OF CHILDHOOD. J. H. S. PETTIT. (1954) *Brit. med. J.*, 1, 79.

This paper presents a long overdue assessment of the value of unsaturated fatty acids in the treatment of eczema, particularly in view of their recent popularity.

Fifteen cases of infantile and atopic eczema were treated with local and oral unsaturated fatty acids. Twelve were treated with usual remedies. The combined use of linoleic and linolenic acid ointment and capsules, and the use of the capsules as an adjuvant to routine treatment were in no way preferable to the established methods of treatment.
B. A. T.

THE INVESTIGATION OF RECTAL SYMPTOMS. V. IRRITATION. W. B. GABRIEL. (1953) *Med. Pr.*, 229, 439.

Careful inspection of the anal region is of paramount importance in the investigation of pruritus ani, and obvious local causes such as prolapsing piles, fistula-in-ano or excess of mucus in the rectum must be treated. The exclusion of threadworm infestation is necessary, and to do this a therapeutic test with gentian violet may be required.

Fungous infection is nowadays a common cause of perianal irritation and usually responds well to Castellani's carbol-fuchsin paint.

The author mentions food allergy as being an accepted cause, but he himself has not been impressed by its importance.

It is important to try and break the "scratch" habit, and to do this sedation with barbiturates is useful.
H. R. V.

MECHANISMS OF CUTANEOUS DRUG REACTIONS, ESPECIALLY TO ANTIBIOTICS. A. ROSTENBERG and J. R. WEBSTER. (1954) *J. Amer. med. Ass.*, 154, 221.

An interesting discussion of the possible mechanisms involved in cutaneous reactions to drugs. The mechanisms are classified as pharmacological, enzymic interference, intolerance or idiosyncrasy, allergic, Schwartzman, Herxheimer, ecological and biotrophic. Examples are given of each type. The mechanisms of antibiotic reactions are considered in some detail.
A. J. R.

CHROMATE HAZARDS IN INDUSTRY. E. N. WALSH. (1953) *J. Amer. med. Ass.*, 153, 1305.

Dermatitis and ulceration in workers handling chromium compounds were recognized by Cumin in 1827. These are still the most important chromate hazards in industry. The industrial

uses of chromium are described; among the less familiar uses are in recirculating water systems to control corrosion, and as zinc chromate primer on most aluminium and magnesium aircraft parts. For the latter purposes hexavalent chromium compounds are used. They are also used in chromium plating and in anodizing and are a frequent cause of dermatitis. Trivalent compounds or chromium metal employed in other industrial processes are not known to cause dermatitis.

Chrome ulcers are apparently due to a toxic or necrotizing action of the chromate ion on living tissue, independent of sensitizing properties or primary irritation.

Chromate dermatitis presents a variable clinical picture but is characteristically patchy and of long duration. Treatment and prophylaxis are discussed.

A. J. R.

OTITIS EXTERNA, THE FACTS OF THE MATTER. J. W. McLAURIN. (1954) *J. Amer. med. Ass.*, 154, 207.

The author, an otologist, analyses his records of 157 cases of otitis externa. No new facts are presented, but there is a useful short bibliography of recent articles. Recommendations for treatment are in the main conventional but are given in sufficient detail to be helpful.

A. J. R.

ERYTHROMYCIN IN LOCAL TREATMENT OF CUTANEOUS BACTERIAL INFECTIONS. C. S. LIVINGOOD, E. S. HEAD, E. A. JOHNSON and S. NILASENA. (1953) *J. Amer. med. Ass.*, 153, 1266.

Erythromycin 0.5% ointment appears to be effective in primary staphylococcal and streptococcal infections of the skin. The results in secondary bacterial infections were less satisfactory; erythromycin may not be as well tolerated by eczematized skin as certain other antibiotics. The results of *in vitro* sensitivity tests are reported. Erythromycin is potent against staphylococci and streptococci but not against gram-negative organisms.

A. J. R.

TREATMENT OF CHRONIC DISCOID LUPUS ERYTHEMATOSUS WITH QUINACRINE. H. N. COLE, Jr., P. V. CHIVINGTON, H. N. COLE, and J. R. DRIVER. (1953) *J. Amer. med. Ass.*, 153, 1515.

Thirty-two patients with chronic discoid lupus erythematosus were treated with quinacrine, 0.1 g. twice daily for two weeks and 0.1 g. daily thereafter for periods of 1 to 12 months. Twelve patients were apparently cured and 15 showed over 50% improvement. Since maximum response is usually observed within 3 to 4 months it may be advisable not to prolong treatment beyond this period. The two toxic reactions observed occurred after 3 and 4 months respectively. Relapse has not taken place in those patients who cleared completely.

A. J. R.

ROLE OF THE DERMATOLOGIST IN THERAPY OF CANCER OF THE SKIN. J. H. LAMB. (1953) *J. Amer. med. Ass.*, 153, 1509.

TREATMENT OF MALIGNANT CUTANEOUS LESIONS. E. D. OSBORNE. (1954) *J. Amer. med. Ass.*, 154, 1.

RADIUM IN MALIGNANT CUTANEOUS DISEASE. C. F. LEHMANN and J. L. PIPKIN. (1954) *J. Amer. med. Ass.*, 154, 4.

DIAGNOSIS AND TREATMENT OF CARCINOMA OF THE EYELIDS. E. F. TRAUB. (1954) *J. Amer. med. Ass.*, 154, 9.

CANCER OF FOREHEAD AND SCALP. J. B. HOWELL and J. MURRAY RIDDELL. (1954) *J. Amer. med. Ass.*, 154, 13.

ROENTGEN IRRADIATION IN THE TREATMENT OF EPITHELIOMA. G. C. ANDREWS, A. M. DOMONKOS and W. B. HURLBUT. (1954) *J. Amer. med. Ass.*, 154, 21.

These six papers were read in the Symposium on Cutaneous Malignancy before the section on Dermatology of the American Medical Association.

Osborne considers that in the majority of skin cancers (excluding melanomas) thorough curettage followed by diathermy is the treatment of choice. He claims excellent 5 and 10 years results and finds the simplicity and rapidity of this form of treatment important advantages. Excision, radiation therapy and local chemotherapy are indicated in some cases.

Lehmann and Pipkin employ interstitial radium needles with success. They give a full account of their technique. They do not claim that radium therapy is superior to x-ray therapy but find it more convenient and equally satisfactory.

10-15% of facial epitheliomas are about the eyelids. Traub describes his technique in treating them and summarizes his results. He combines curettage and fulguration with either x-ray or radium.

The long paper on cancer of the forehead and scalp is particularly helpful. Basal cell carcinomas of multicentric origin and morphea-like epitheliomas frequently occur on the scalp. Difficult treatment problems are presented by lesions invading periosteum, bone or even the meninges. Surgery is usually preferable to radiotherapy. The special difficulties encountered are discussed and many case histories are reported.

Andrews and his colleagues favour the divided dose technique of radiotherapy for skin epitheliomata. Their results in 1000 cases are analysed.

A. J. R.

EFFECT OF CORTISONE AND CORTICOTROPIN ON PROGNOSIS OF SYSTEMIC LUPUS ERYTHEMATOSUS : SURVEY OF 83 PATIENTS WITH POSITIVE PLASMA L.E. TESTS.

JOHN R. HASERICK. (1953) *Arch. Derm. Syph., Chicago*, **68**, 714.

Of 10 patients treated in pre-cortisone days 9 were dead while of the remaining 73 who had steroid hormones 58 were still alive in June 1953. There may be a dramatic effect from the steroid hormones leading to a prolongation of life by continuous maintenance therapy and a reduction in morbidity, but certain patients fail to improve, especially those with progressive renal disease.

J. K.

ATOPIC DERMATITIS : A STUDY OF ITS NATURAL COURSE AND OF WOOL AS A DOMINANT ALLERGENIC FACTOR.

EARL D. OSBORNE and PHILIP F. MURRAY. (1953) *Arch. Derm. Syph., Chicago*, **68**, 619.

The authors are convinced that wool is the dominant allergen in atopic dermatitis. Contact is not only to woollen garments but to house dust, which they find contains a percentage of wool fibre. If this rises to 2% or over, as occurs when houses are shut up and centrally heated for the winter, the dermatitis becomes worse, and they thus explain the seasonal occurrence or deterioration of atopic dermatitis in the Buffalo area during the cold months of the year and its improvement if the patient moves to a climate such as Florida where windows can be kept open all the year round. They therefore recommend that such patients not only avoid contact with woollen clothing but banish all woollen rugs, carpets and blankets from the house. "Authorities have stated for many years that approximately 95% of persons with atopic dermatitis have positive intradermal tests to house dust and at least 90% to wool protein."

J. K.

CATHODE RAY TREATMENT FOR LYMPHOMAS INVOLVING THE SKIN.

HUGH F. HARE, JOHN L. FROMER, JOHN G. TRUMP, KENNETH A. WRIGHT and JOHN H. ANSON. (1953) *Arch. Derm. Syph., Chicago*, **68**, 635.

Five patients with mycosis fungoides were successfully treated with cathode rays. It is unfortunately necessary to possess apparatus necessary to energize electrons by 2,500,000 volts to achieve this result.

J. K.

COMPARISON OF EFFECTS OF SOAPS AND SYNTHETIC DETERGENTS ON HANDS OF HOUSEWIVES : CLINICAL METHOD.

STURE A. M. JOHNSON, ROY L. KILE, D. J. KOOYMAN, H. S. WHITEHOUSE and J. S. BROD. (1953) *Arch. Derm. Syph., Chicago*, **68**, 643.

Eleven dermatologists aided by wide-angle binocular microscopes examined the hands of housewives before and after a period of two weeks during which they used selected soaps and synthetic detergents. The dermatologists' findings were, not surprisingly, in general agreement with those of the housewives who used the products. Some are harder on the skin than others.

J. K.

EFFECT OF SPLENECTOMY IN ACUTE SYSTEMIC LUPUS ERYTHEMATOSUS.

HAROLD M. JOHNSON. (1953) *Arch. Derm. Syph., Chicago*, **68**, 699.

Details are given of 12 patients who had splenectomy done for acute lupus erythematosus. In 2 cases the results were dramatic, "the other patients showed favourable clinical and haematological changes" though one died from effects of the operation. Splenectomy may usually be relied on permanently to eliminate thrombocytopenia, leucopenia or acquired haemolytic anaemia

from the picture of systemic lupus erythematosus; it may be followed by a remission of the disease but this, the authors admit, may be no more than temporary.

J. K.

THE REDDISH-ORANGE FLUORESCENCE OF NECROTIC CANCEROUS SURFACES UNDER THE WOOD LIGHT. FRANCESCO RONCHESI, BURNHAM S. WALKER and RAYMOND M. YOUNG. (1954) *Arch. Derm. Syph., Chicago*, **69**, 31.

The authors have studied this phenomenon, which has been known for some years, and their report includes very impressive colour photographs taken both in ordinary and in Wood's light. They point out that only ulcerated, necrotic and highly malignant cancers show the typical "live-coal" fluorescence, and other conditions, including rodent ulcers, do not. It would appear to have value in deciding which part of a lesion should be removed for histological examination.

The authors record a case that was found in three biopsies to be inflammatory but was shown to be squamous carcinoma when a fluorescing area was removed.

J. K.

ASSOCIATION OF MUCOCUTANEOUS AND VISCERAL CANCERS. ERVIN EPSTEIN. (1954) *Arch. Derm. Syph., Chicago*, **69**, 58.

The author has investigated Peller's claim that a patient who had had an epithelioma is less likely to develop visceral cancer than one who had not. While admitting the difficulty of finding adequate controls for such a study he concludes that internal cancer is not uncommon in patients with epitheliomas and that there is no evidence that epitheliomas immunize against visceral cancer.

J. K.

TREATMENT OF PEMPHIGUS WITH CORTISONE BY MOUTH. ADOLPH H. CONRAD, JR., JEROME GREENHOUSE and RICHARD S. WEISS. (1954) *Arch. Derm. Syph., Chicago*, **69**, 66.

It is unfortunate that details of the histology of the lesions (even where biopsy was done) are not given, and the exact diagnosis of several cases is, in the abstractor's view, in doubt. The authors conclude from 8 cases they describe that cortisone given by the mouth and given parenterally produces the same result.

J. K.

SODIUM SULPHACETAMIDE IN TOPICAL THERAPY. WERNER W. DUEMLING. (1954) *Arch. Derm. Syph., Chicago*, **69**, 75.

Sodium sulphacetamide, 10% in ointment or 3% in shampoo, was used in 100 patients with various infective dermatoses. Good results were obtained, and irritation was produced in only 4 cases.

J. K.

THE SIGNIFICANCE OF PRODUCTS OF BACTERIAL METABOLISM IN GENESIS OF ECZEMA. J. MEYER-ROHN and G. SCHROEDER. (1953) *Arch. Derm. Syph., Berl.*, **196**, 305.

A continuation of the work of Storek. Filtrates of bacterial cultures, derived from diseased and healthy skin, gave a high percentage of positive patch tests in cases of eczema, where a bacterial origin was possible, seborrhoeic eczema, nummular eczema and leg eczema with "id."

M. F.

KAPOSI'S VARICELLIFORM ERUPTION (ECZEMA HERPETIFORME). H. LAUSECKER. (1953) *Arch. Derm. Syph., Berl.*, **196**, 183.

Kaposi's varicelliform eruption is caused by the herpes virus, eczema vaccinatum by the vaccinia virus. In the former are found unilocular, umbilicated, vesicles or pustules usually of the same size, relapses occur over 14 days, the picture is polymorphous and regional lymph glands are only moderately enlarged. In the latter, pustules are multilocular, umbilicated, of variable size, but larger, with oedema and a disease picture fully developed by the fourth day. Regional lymph glands are very swollen.

M. F.

DIFFERENTIAL MORPHOGENESIS OF SO-CALLED SEBORRHOEIC ECZEMA. W. NIKOLOWSKI. (1953) *Arch. Derm. Syph., Berl.*, **196**, 501.

A whole number of the German archives—100 pages—is devoted to this clinical approach. The figurate seborrhoeide is distinctive in showing maximal histological change, spongiosis and acanthosis at the edge of the lesion. Here the pityrosporon is seen in active multiplication.

M. F.

THE GROWTH IN THE DEVELOPING CHICKEN EMBRYO OF A FILTERABLE AGENT FROM VERRUCA VULGARIS. J. A. BIVINS. (1953) *J. invest. Derm.*, 20, 471.

The fact of immunity is established for many domestic animals, and wart vaccines commercially produced by egg-embryo culture have been on the market for several years.

The author, a veterinary surgeon, obtained massive proliferation and pearl-formation in the chorioallantoic membrane of the 10-day-old chick embryo with material from his own wart. The operation is clearly described.

The virus, Berkefeld—but not Boernes—passing, was not very susceptible to a number of supposedly useful antibiotics. No antibodies appeared in the patient's serum.

J. H. T. D.

ANTIBIOTICS AND THEIR ACTION ON PATHOGENIC FUNGI. I. PENICILLIN AND STREPTOMYCIN. F. RAUBITSCHKE. (1953) *J. invest. Derm.*, 20, 401.

The addition of penicillin and streptomycin to the usual culture media not only eliminates competition for space but it also appears to facilitate the transition from the parasitic to the saprophytic mode of life. It has no effect on the rate of growth of subcultures.

J. H. T. D.

ERYTHROMYCIN OINTMENT IN THE TREATMENT OF THE PYODERMAS. H. M. ROBINSON, Jr., and I. ZELIGMAN. (1953) *J. invest. Derm.*, 20, 405.

TREATMENT OF GRANULOMA INGUINALE WITH ERYTHROMYCIN. H. M. ROBINSON, Jr., and M. M. COHEN. (1953) *J. invest. Derm.*, 20, 407.

Only one failure out of 3 cases of paronychia (presumably of the familiar chronic type), not a single one in 4 cases of sycosis vulgaris (do they mean the cicatrizing folliculitis or what is sometimes vulgarly called sycosis ?) ! We must have some of this stuff before it is too late !

Results with impetigo "contagiosa" and ecthyma are fully as good as those obtained with lapse of time alone ! Is impetigo contagious just now in Maryland or the U.S.A., and has it always been so ?

Some more loose talk about the eradication of "secondary infection" in eczema dermatitis and the like. What do they mean by secondary infection ? Do they mean that eczema and dermatitis are simple infective diseases not in themselves produced by the pus cocci that manage to eke out a precarious living from the exudate or do they mean that the inflammation is lively enough to resemble the effect on a wound of contaminating it with pus cocci : or again do they mean that each case so styled was complicated by a septic lymphangitis ?

It is to be hoped that the authors will continue to keep records of their results with their new antibiotic. It will be interesting to watch the negative progress of its success and just how long it will take before patients with the specific idiosyncrasy present themselves.

The authors of the second paper have taken the opportunity of closing the accounts of 8 out of their 9 cases of granuloma inguinale (Donovan bodies) while the remedy was still a new one.

J. H. T. D.

EXPERIMENTAL HISTAMINE PRURITUS. II. NATURE : PHYSICAL AND ENVIRONMENTAL FACTORS INFLUENCING DEVELOPMENT AND SEVERITY. F. E. CORONIA and V. KUYKENDAHL. (1953) *J. invest. Derm.*, 20, 429.

Itching is modified pain, mediated by the afferent pain fibres that conduct the diffuse pain sensation and discharge their impulses up the spinothalamic tract to the somaesthetic cortex.

Intensification of the itch stimulus produces burning, and a summation of burning effects may cause pain. Reduction of a painful or burning sensation by partial local anaesthesia changes it to itching.

Itch is associated with the flare rather than with the wheal in the histamine response. Itching survives suppression by ligature at 50 mm. Hg. of the wheal : an increase in the size of the wheal may in fact reduce its itchiness. The itch threshold for histamine varies between 1/1000 and 1/1,000,000. For a very large majority it is 1/100,000. A few subjects over 50 do not react at all. It varies enough from day to day to need reassessing for experimental purposes. The threshold is equal on the two upper extremities though the subjective sensations may have different intensity. It is a little lower on the leg and a little higher on the back. For most people it is lower at night.

The threshold is lowered by raising the local temperature to 39° C. and raised by lowering it to 25° C. The burning sensation produced by immersing the part in hot water above 39° C. masks the itching but does not prevent its return on cooling.

J. H. T. D.

THE PHYSIOLOGY OF THE HUMAN AXILLARY APOKRINE SWEAT GLAND. W. B. SHELLEY and H. J. HURLEY. (1953) *J. invest. Derm.*, **20**, 285.

Apocrine sweat is scanty and difficult to collect. An individual gland produces only 0.001 c.c. in response to stimulation by local injection of adrenalin and then it goes into a refractory state lasting 24 hours. In most people the sweat issues from a hair follicle but there are sometimes a few ducts opening directly on the surface. It never forms a droplet but quickly spreads over the surface. It may resemble thick cream or may only be slightly turbid. On drying it forms a gummy crust. It is also distinguishable from eccrine sweat by its fluorescence and its higher pH.

Intradermal adrenalin is reliable. Pilocarpin elicited apocrine secretion in only 3 of 25 cases, but in 10 of them eccrine sweat was collected from the ostium of hair follicles. The authors give a list of reasons why they prefer to believe in a follicular eccrine sweat as opposed to a twofold function of the apocrine gland. Acetylcholine evoked only eccrine sweating: similarly exposure to heat. The pain of parturition and that elicited by sticking a needle into the palm of the hand invariably caused eccrine sweating and sometimes apocrine. For the purpose of these experiments it was considered necessary to use subjects who do not regularly use axillary antiperspirants. They proved hard to come by—in either sex.

J. H. T. D.

THE VITAMIN AMINO ACID AND GROWTH REQUIREMENTS OF THE GENUS MICROSPORUM. E. S. BERESTON. (1953) *J. invest. Derm.*, **20**, 461.

NH_4NO_3 and $(\text{NH}_4)_2\text{SO}_4$ as well as most of the amino acids are adequate sources of nitrogen for *M. audouini*, *canis* and *M. gypseum*. Hydroxyproline, however, is not only useless but even inhibitory: tyrosine alpha-alanine glutamine cysteine and thiamine are unsatisfactory as sole sources. Most dermatophytes can generate their own vitamins but grow better when they are added to the medium. Their requirements are various, but *M. audouini* will not grow at all in the absence of a trace of thiamine. This can be denied it by using casein hydrolysate as the nitrogen source or adding neopyrithiamine as an antagonist.

J. H. T. D.

EFFECT OF COLCHICINE ON THE FASTING EOSINOPHIL COUNT. L. M. NELSON and K. GUNTHER. (1953) *J. invest. Derm.*, **20**, 249.

An exploration of a report (Leblond and Sebel, 1938) to the effect that, in experimental animals, colchicine causes hyperplasia of the adrenals and involution of the lymphatic system.

Eight otherwise healthy subjects in hospital for various skin disorders were given large doses of colchicine without any effect on their eosinophil counts.

J. H. T. D.

A FREE ALCOHOL OF COMPOUND F (HYDROCORTISONE) OF A ROD-CRYSTAL TYPE (TYPE B) PRODUCING A LOCAL INHIBITORY REACTION. L. GOLDMAN, E. EMURA and J. BASKETT. (1953) *J. invest. Derm.*, **20**, 247.

"Another type of free alcohol of Compound F of a rod-crystal type does exhibit on injection some definite but not prolonged local inhibitory reaction on various forms of local inflammation of the skin of man. The effect of this type of free alcohol is not as persistent as with free acetate. The free alcohol of Compound F is highly effective by mouth."

J. H. T. D.

EXPERIMENTS ON PASSIVE TRANSFER OF ECZEMATOUS ALLERGY. H. HANTHAUSEN. (1952) *J. invest. Derm.*, **19**, 293.

That the intracutaneous injection of such eczematogenous allergens as Ni, Cr, and Hg or the sulphonamides yields in sensitized persons a late intracutaneous reaction resembling a tuberculin reaction was the reason why Lawrence's observations have revived interest in the possibility of a passive transfer of allergy by means of leucocytes. Lawrence obtained his leucocytes by accelerating the sedimentation of the red cells with bovine fibrinogen. The author, unable to get fibrinogen, used gum arabic instead and also tried plain centrifugation; in both cases he abstained from trying to wash out the plasma because numerous earlier experiments had shown that the plasma is unable to transmit (nor presumably is it capable of inhibiting?) the effect concerned. Intradermal injection of a suspension of leucocytes even when they are autogenous provokes quite a severe reaction reaching its peak in 24 hours. Twenty different allergens were used in 66 subjects. In not a single case was passive transfer achieved. In several cases a modification of the immediate reaction to intradermal injection and in one—of turpentine allergy—an adventitious active sensitization.

J. H. T. D.

THE FUNGISTATIC AND FUNGICIDAL ACTIVITY OF VEGETABLE ESSENTIAL OILS AND THEIR COMPONENTS. X. VILANOVA and M. CASANOVAS. (1953) *J. invest. Derm.*, 20, 429.

Several essential oils are fungistatic in high dilution and a few are even fungicidal.

J. H. T. D.

ISONIAZID IN THE TREATMENT OF CHRONIC DISCOID LUPUS ERYTHEMATOSUS. REPORT OF 3 CASES. E. EDELSON. (1953) *J. invest. Derm.*, 21, 1.

ISONIAZID IN THE TREATMENT OF SARCOIDOSIS. E. EDELSON. (1953) *J. invest. Derm.*, 21, 71.

THERAPEUTIC ASSAYS OF THE SKIN AND CANCER UNIT OF THE NEW YORK UNIVERSITY HOSPITAL. ASSAY VIII. ISONICOTINYLHYDRAZINE ("RIMIFON") IN THE TREATMENT OF TUBERCULOSIS CUTIS, SOME OTHER GRANULOMATOUS PROCESSES AND MISCELLANEOUS DERMATOSES OF DOUBTFUL CAUSE. M. LEIDER and H. H. SAWICKY. (1953) *J. invest. Derm.*, 21, 49.

Edelson claims 1 cured and 2 improved of discoid L.E., and 3 out of 5 with sarcoidosis improved. Leider and Sawicky found the drug no good for either malady.

It is noteworthy that of the 17 among 20 cases of lupus vulgaris and tuberculosis cutis which did well, only 6 had been treated previously with calciferol or streptomycin, and they had failed to respond to either.

J. H. T. D.

SPECIFIC TISSUE ALTERATION IN LEPROUS SKIN. III. SPECIFIC REACTION DUE TO VARIOUS AGENTS. F. SAGHER, E. LIBAN and E. KOCSARD. (1953) *J. invest. Derm.*, 20, 343.

This investigation concerns leproma. The apparently normal skin of 11 out of 34 patients, from whom 41 biopsies were taken, always contained a few foam cells but only minimal infiltrations. The reaction in the normal skin of 15 patients, submitted to the Leishmanin test, sand-fly bite, injections of milk and peptone, or presenting cutaneous reactions to treatment, invariably simulated the lesion of leproma without, or with very few, bacilli.

J. H. T. D.

FAILURE OF STILBAMIDINE TO ARREST EXPERIMENTAL BLASTOMYCOSIS IN MICE.

J. SCHWARZ and S. ADRIANO. (1953) *J. invest. Derm.*, 20, 329.

Stilbamidine, which at the dosage recommended for man has already given clinical proof of its dangerous toxicity, has little or no influence on the course of blastomycosis in mice. Reports that infected mice had been relieved by a daily dose much greater than 2 mg. per kilo are considered to have no practical application to man.

J. H. T. D.

A RAPID QUALITATIVE METHOD FOR MEASURING THE ION EXCHANGING ACTIVITY OF DERMATOLOGIC PREPARATIONS CONTAINING AN ION EXCHANGE RESIN. A. E. JURIST. (1954) *J. invest. Derm.*, 20, 331.

The pH of an alkaline solution of sodium citrate contained in a collodion bag can be lowered by the application to the surface of the bag of suitable ointments, etc., containing 20% of a "cationic carboxylic acid type resin".

J. H. T. D.

THE RELATIONSHIP BETWEEN CERTAIN EMOTIONAL STATES AND THE RATE OF SECRETION OF SEBUM. M. ROBIN and J. G. KEPECS. (1953) *J. invest. Derm.*, 20, 373.

Method: teasing alternating with consolation, the effects being measured by staining the droplets of oil on the brow with osmic acid and counting them.

Everybody knows that we sweat oil when we are not enjoying ourselves but there is no agreement about the mechanism whether it be hormonal, haemic or nervous, or even whether the sebaceous glands receive any innervation at all. But the idea that either fear or frolic might influence the function of the follicle meets with horrid opposition in discussion.

Surely the unshaven appearance at an intempestive breakfast of one who has spent the night in anxious toil is different from that of one who has been enjoying a jolly time?

Perhaps it is not quite so easy to contradict the microbalance's verdict on the harvest of the Remington as to protest that what looked like sebum was really sweat. Now that we do not have to scour the washbasin with unsatisfactory solvents of calcium soap, cannot we begin to look for the answer to the old question—do experiences really raise hair?

J. H. T. D.

ENZYMATIC CYTOLYSIS OF EPITHELIUM BY FILTRATES FROM PATIENTS WITH ULCERATIVE COLITIS. R. B. STOUGHTON. (1953) *J. invest. Derm.*, 20, 353.

Filtrates of the faeces of 18 out of 21 patients with ulcerative colitis contained a factor, different from the epidermis-digesting factor—probably trypsin, present in all faeces—in that it (i) digests formalin-fixed epithelium, (ii) is destroyed in 10 minutes at 56° C., (iii) is inhibited by suramin and treburin, drugs used for pemphigus, and (iv) is inhibited only by great excess of serum. The faeces was examined of only 2 patients with acute diarrhoea. Pediatricians may want to know whether to use serum or formalin.

J. H. T. D.

THE EFFECTS OF TOPICALLY APPLIED HORMONES ON GROWTH PIGMENTATION AND KERATINIZATION OF THE NIPPLE AND AREOLA. C. E. WHEELER, E. P. CRAWLEY and A. C. CURTIS. (1953) *J. invest. Derm.*, 20, 385.

Guinea-pigs have only 2 nipples. The most sensitive indicators of hormonal influence are those of the immature castrated male. The following hormones dissolved in 95% ethyl alcohol in oil or in water were applied to the right nipple daily for 7 to 28 days with varying hypertrophic effect: stilboestrol, oestrone, oestradiol, mixture of cortical steroids, cortisone, desoxycorticosterone, testosterone, methyl testosterone and testosterone propionate. Progesterone had no effect at all.

J. H. T. D.

TISSUE CULTURE STUDIES ON HUMAN SKIN. IV. THE COMPARATIVE TOXIC EFFECTS OF ANTIBIOTICS ON TISSUE CULTURE EXPLANTS OF HUMAN SKIN AND EMBRYONIC CHICK SPLEEN. F. HU, C. S. LIVINGOOD, P. JOHNSON and C. M. POMERAT. (1953) *J. invest. Derm.*, 20, 357.

In No. II of this series, also published in this journal (*J. invest. Derm.*, 18, 193) it was shown that sensitization of the human source had no influence on the behaviour of tissue-culture epidermal cells exposed to the relevant allergen.

This paper deals with primary irritation. The authors are careful to point out the difference between penicillin, tolerated perfectly by all kinds of tissue but producing sensitization phenomena in a comparatively high percentage of patients, and the common acids and alkalies which are primary irritants in low concentration but are never sensitizers (except of course in industry where persons certified by dermatologists to be "sensitive to acids" abound). They contend that the reactions of tissue *in vitro* must give a very fair idea of what happens to already damaged tissues when exposed to the therapeutic hazards of to-day.

J. H. T. D.

QUANTITATIVE COLORIMETRIC ASSAY TECHNIC FOR CORTICOSTEROIDS IN THE SKIN OF MAN. L. GOLDMAN, E. EMURA and J. BASKETT. (1953) *J. invest. Derm.*, 20, 333.

Having discovered that "such features (of corticosteroids) as solubility and persistency effect (*sic*) local inflammatory processes" the authors turn their attention to the question of absorption from ointment bases.

"The ointment is being studied at present with the radioactive Compound F using the free alcohol." "Two assay experiments revealed negative results with the calculated mg. of F as being 0.003 mg."

J. H. T. D.

OBSERVATIONS ON THE REACTIONS OF THE LARVAE OF ANCYLOSTOMA CANIUM AND ANCYLOSTOMA BRAZILIENSE TO VARIOUS DRUGS AND CHEMICAL COMPOUNDS BASED ON IN VITRO TESTS. E. B. RITCHIE and W. C. KING. (1953) *J. invest. Derm.*, 20, 337.

"The high seasonal incidence of creeping eruption in this gulf coast area invariably includes a number of extensive infections with multiple lesions involving large cutaneous areas. The therapeutic management of the patients, as brought out by Kirby Smith seventeen years ago, remains a challenge." It therefore seems that at certain (unspecified) times of the year in the Galveston district they get a lot of creeping eruption, including some severe cases and very little can be done for them. The authors have been observing the behaviour of larvae isolated by means of a Baermann (what is this please?) apparatus from cat faeces placed (with or without their skins) in solutions of various proposed remedies. Where the solution was not a great deal stronger than could be calculated to prevail in the tissues of patients taking sublethal doses, nothing happened. Results were unpredictably inconstant even with hexylresorcinol which was more or less effective *in vitro* between 0.1 and 0.06%.

J. H. T. D.

HYDROA VACCINIFORME TREATED WITH POTASSIUM PARA-AMINO BENZOATE. C. J. D. ZAVAFONETIS, A. C. CURTIS and J. M. SHAW. (1953) *J. invest. Derm.*, 21, 5.

A boy of 9 treated in hospital with "Potaba" 6 g. daily recovered, it was thought, more quickly than could have been expected from mere rest in bed and abstention from the relevant exposure. But when he relapsed his parents could not afford to pay the fare for him to return to hospital.
J. H. T. D.

STUDIES ON THE CHEMICAL COMPOSITION OF HUMAN HAIR FAT. II. THE OVERALL COMPOSITION WITH REGARD TO AGE, SEX AND RACE. N. NICOLAIDES and S. ROTHMAN (1953) *J. invest. Derm.*, 21, 9.

That negroes are greasier than non-blacks, and that the composition of the sebum of adolescent boys differs from that of old women is confirmed. The material obtained by extraction of hair cuttings also differed in composition from that washed out of the growing hair with ether-soaked swabs. The work conveys an impression of meticulous accuracy.
J. H. T. D.

HISTOLOGY AND CYTOCHEMISTRY OF HUMAN SKIN. III. POLYMORPHISM AND CHROMOTROPY OF MAST CELLS. W. MONTAGNA and H. MELARAGNO. (1953) *J. invest. Derm.*, 20, 257.

If the mast cell is to be defined merely as a cell having granules stainable with toluidin blue, then those having the same shape and general appearance as fibroblasts are much more numerous than the ones with an oval or round cell body: but these also have a larger and more uniformly sized granule. All granules stain with toluidin blue at pH 2.5 but only the big ones at pH 4. This may throw light on the difficulty sometimes experienced in metachromatic staining or, perhaps, constitute a measure of the specific activity of the cell.

The very serviceable staining reaction with Unna-Pappenheim is not mentioned in this paper.
J. H. T. D.

THE EFFECT OF DIPARALENE (CHLORCYCLIZINE HYDROCHLORIDE) ON SYSTEMIC FUNGUS INFECTIONS IN MICE. W. J. FAHLBERG. (1953) *J. invest. Derm.*, 21, 125.

Diparalene harmless by itself in appropriate dosage seems, if anything, to aggravate the effects of infection with *Cryptococcus neoformans* and *Candida albicans*.
J. H. T. D.

THE CLINICAL ASSAY OF A NEW FUNGICIDE P594 (2 NITRO-2 BROMO-1 METHOXY-1 PHENYLPROPANE). W. E. WOOLDRIDGE. (1953) *J. invest. Derm.*, 21, 121.

Not bad. But in only 4 of the 81 patients was the opportunity taken of symmetrical lesions to compare drug against plain base; in another 3 the new fungicide was contrasted with the last but one. Any difference there may have been was noticed "after several weeks." In every case reported the infecting fungus had been culturally identified.
J. H. T. D.

STUDIES OF A NITROCELLULOSE SILICONE CREAM AS A SKIN PROTECTANT AGAINST ECZEMATOUS CONTACT ALLERGENS. C. C. SMITH, T. L. DAY, E. H. ZIMMERMAN. (1953) *J. invest. Derm.*, 21, 111.

The cream was rubbed into the left side of the back of 36 allergic subjects twice daily for a few days. Then after a bath the relevant allergen, progressively diluted, was painted on symmetrical sites. In many cases the cream appeared to give useful protection.
J. H. T. D.

ELECTRON MICROSCOPIC STUDY OF EPIDERMAL BASAL CELLS AND THE EPIDERMAL JUNCTION. E. L. LADEN, I. LINDEN, J. O. ERICKSON and D. ARMEN. (1953) *J. invest. Derm.*, 21, 37.

These impressively magnified views show as distinctly as possible the basal membrane that all the best people say isn't there.
J. H. T. D.

REPORT ON 9 MONTHS' TREATMENT OF LEPROSY WITH ISONIAZID. F. LATAPI, J. B. RUBIO, O. RODRIGUEZ, S. C. ESTRADA. (1953) *J. invest. Derm.*, 21, 27.

Significant improvement took place in all 13 cases of leproma treated for 7-9 months with nydiazid (Squibb).
J. H. T. D.

GRENZ RAYS. M. B. HOLLANDER. (1953) *J. invest. Derm.*, **21**, 15.

Grenz-rays are x-rays of 1-4 Å with half values up to 0.035 mm. Å, produced at 6-15 (peak) kV. They are almost completely absorbed in the outermost 3 mm. of tissue. Their effects beneficial or otherwise can therefore only be superficial.

Except for naevus vinosus, Darrier's disease and, more recently, leproma nobody claims that Grenz- can do more than x-rays. But they are safer. One can go on treating psoriasis with them indefinitely. If one starts with x-rays one has sooner or later to fit a good strong lead filter or else disappoint the patient.

J. H. T. D.

THE PENETRATION OF FAT AND FATTY ACID INTO THE SKIN OF THE RAT. E. O. BUTCHER. (1953) *J. invest. Derm.*, **21**, 43.

Linoleic oleic and ricinoleic acids, lanolin and squalene, with methyl anthranilate added to them in order to reinforce their natural fluorescence, were rubbed into the skin of rats the hair of which had been "removed" (? by ordinary shaving electric razor, plucking, depilatory cream, chloroprene dimers, thallium) the day before. The idea was to see if their presence could be detected at any depth in the skin by examining by ultraviolet light frozen sections mounted in glycerine.

Linoleic acid easily gets through and into the vessels, oleic acid with difficulty.

J. H. T. D.

SPECIFIC TISSUE ALTERATION IN LEPROUS SKIN. III. SPECIFICITY OF TUBERCULIN REACTION IN LEPROMATOUS LEPROSY. E. KOCSARD and F. SAGHER. (1953) *J. invest. Derm.*, **21**, 69.

Leproma does not affect the specificity of the tuberculin reaction with purified protein derivative. Of the 24 subjects 12 gave a positive reaction to P.P.D. and 12 a negative one. All these and a few of the former were later inoculated with B.C.G. with the regular and expected result.

J. H. T. D.

THE TREATMENT OF LUPUS ERYTHEMATOSUS WITH MEPACRINE. G. HARVEY and T. COCHRANE. (1953) *J. invest. Derm.*, **21**, 99.

The authors record good results 60% and complications 13% from treating 62 cases of L.E. with mepacrine. This is more or less in accord with the experience of others many of whom do not employ such large doses. Paludrine failed in every one of 10 cases; chloroquin succeeded—and doubtfully at that—in only 2 of 10; quinine is not mentioned. What is quite astonishing is their excellent report of bismuth and mapharside, with which the above results compare quite unfavourably. The references to this matter are not very clearly given but certain inferences may possibly be drawn from the dates.

J. H. T. D.

THE DERMATOPHYTE, MICROSPORON GYPSEUM, AS A SAPROPHYTE AND PARASITE.L. AJELLO. (1953) *J. Invest. Derm.*, **21**, 157.

Samples of earth in Petri dishes, kept in the dark at 20° F. and provided with moisture, were strewn with autoclaved human hairs as bait to attract any keratophilic fungi.

35% of the samples were found to contain *Microsporon* (or *Achorion*) *gypseum* which in view of the contrast between its rarity in clinical practice and its ubiquity, must be regarded as a saprophyte. Not all keratophilic fungi are dermatophytes; the excellent photomicrographs will help the reader to distinguish between the microbe in question and another, *Keratinomyces Ajelloi*.

J. H. T. D.

ON THE MODE OF ACTION OF SELENIUM SULPHIDE. P. FLESC. (1953) *J. invest. Derm.*, **21**, 233.

The commercial success of a selenium sulphide shampoo has persuaded the author to devise experiments to show whether -SH groups in human epidermis are released by detergents and inactivated by selenium. It appears that they are but it is not clear why they should not do better left alone.

J. H. T. D.

IN VITRO FUNGISTATIC ACTIVITY OF STILBAMIDINE PROPAMIDINE PENTAMIDINE AND DIETHYLSTILBOESTROL. F. C. BOCOBO, A. C. CURTIS and E. R. HARRELL. (1953) *J. invest. Derm.*, **21**, 49.

Contains a summary of the literature and a table showing the range of fungistatic activity of sex hormones and other substances chemically related to them.

J. H. T. D.

TEMPORARY DEPILATION OF THE SCALP RESULTING FROM THE USE OF A NEW "ANTI-FUNGAL" CHEMICAL. J. W. WILSON, H. LEVITT, J. W. CARNEY and A. YEAMAN. (1953) *J. invest. Derm.*, **21**, 131.

p-(Betadiethylamino-ethoxy) phenyl phenethyl ketone is a depilatory unrelated chemically to any of the "unsaturated compounds" of Flesch and Goldstone. J. H. T. D.

THE DISTRIBUTION OF CHOLINESTERASE IN HUMAN SKIN WITH SPECIAL REFERENCE TO ECCRINE AND APOKRINE SWEAT-GLANDS. H. J. HURLEY, W. B. SHELLEY and G. B. KOELLE. (1953) *J. invest. Derm.*, **21**, 139.

Does the apocrine gland have two kinds of innervation: adrenergic for the milk and cholinergic for the water? Where cholinergic innervation prevails, for example around the eccrine glands, there is a specific cholinesterase. Di-isopropyl fluorophosphate is used to inactivate the nonspecific and leave the specific cholinesterase; and this reacts in the section with a special reagent to precipitate copper sulphide.

The photomicrographs that illustrate this paper not only serve their specific purpose but are aesthetically satisfying. J. H. T. D.

OBSERVATIONS ON CHOLINERGIC URTICARIA. J. K. MORGAN. (1953) *J. invest. Derm.*, **21**, 173.

Three cases were investigated, 2 in young males, of urticaria associated with the sensation of heat produced by physical exertion, and one in a female who not only reacted also to atmospheric heat but was dermographic as well.

It has long been recognized that in these cases—clinically very characteristic with their small flushed wheals—acetylcholine plays a part in the release of histamine. In his experiments the author showed that the urticaria (which in all 3 cases used to remit for 48 hours after a severe attack) could be banished from areas treated with the histamine-liberator trafuril.

Histamine therefore is essential to the reaction but there is no evidence of any abnormal response to it. The experiments designed to show that the response to acetyl choline is abnormal yield figures that are significant without being impressive. Perhaps the most important finding was the low whole-blood cholinesterase level. J. H. T. D.

THE TREATMENT OF ACNE WITH TACE. R. L. KILE. (1953) *J. invest. Derm.*, **21**, 79.

This is not the imperative of *taceo* but merely short for tri-*p*-anisylchloroethylene, a new and therapeutically more convenient oestrogen.

Twenty-one out of 40 girls were helped (about the number the author would have expected to improve as the result of mere observation) and 6 (not more than with other preparations) were upset by it.

This paper, which contains a succinct and valuable summary of the present position of hormone therapy of acne, might well be adopted as a model by anyone proposing to report a therapeutic trial. J. H. T. D.

CONTACT DERMATITIS FROM RUBBER CAUSED BY ALLERGIC SENSITIVITY TO THIO-BETA-NAPHTHOL. I. L. SCHAMBERG and P. FLESCHE. (1953) *J. invest. Derm.*, **21**, 59.

The threshold of patch-test reactivity was at the dilution of 1:200 representing 25 μ g. of the pure substance per cm.²: but the patient had already reacted violently to contact for 15 seconds with rubber containing 0.1875% (I think we may say a little less than 0.2). Possibly antioxidants in the rubber prevent deterioration that might occur in process of patch-testing, but in patch-test studies of rubber paradoxical events are not unusual. Positive patch-test reactions were not obtained with other kinds of rubber, nor with substances closely related to thiobetanaphthol. Perhaps the free -SH group has something to do with it? Does it displace cysteine? At any rate local injection of cysteine did not stop it in this case.

J. H. T. D.

TREATMENT OF CHRONIC DISCOID LUPUS ERYTHEMATOSUS WITH LARGE DOSES OF VITAMIN B₁₂. M. D. MARCUS, A. H. CONRAD and R. S. WEISS. (1953) *J. invest. Derm.*, **21**, 75.

Although most of the subjects experienced a mild euphoria, a dosage of 1000 microgrammes three times a week had no specific action. J. H. T. D.